

# Tutorial

From Sketchup to Artlantis, the basis...

# Prologue

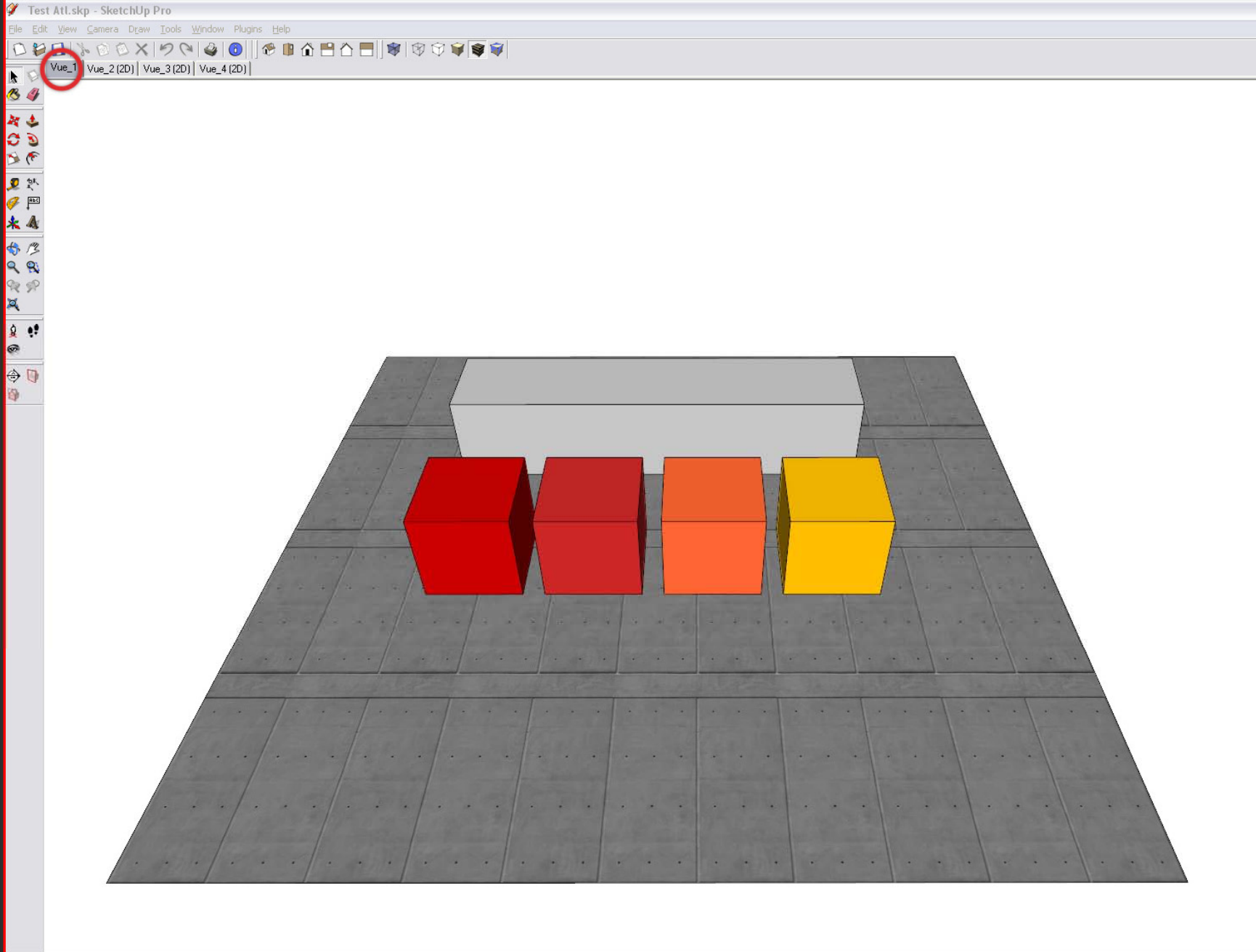
Understanding where to start ...



## Prologue

Let's take a simple sketchup model:  
several colored boxes, a plan, a  
texture...here we are, the stage is  
set...

Note that it does have some scenes,  
which represent different points of  
view in the model.



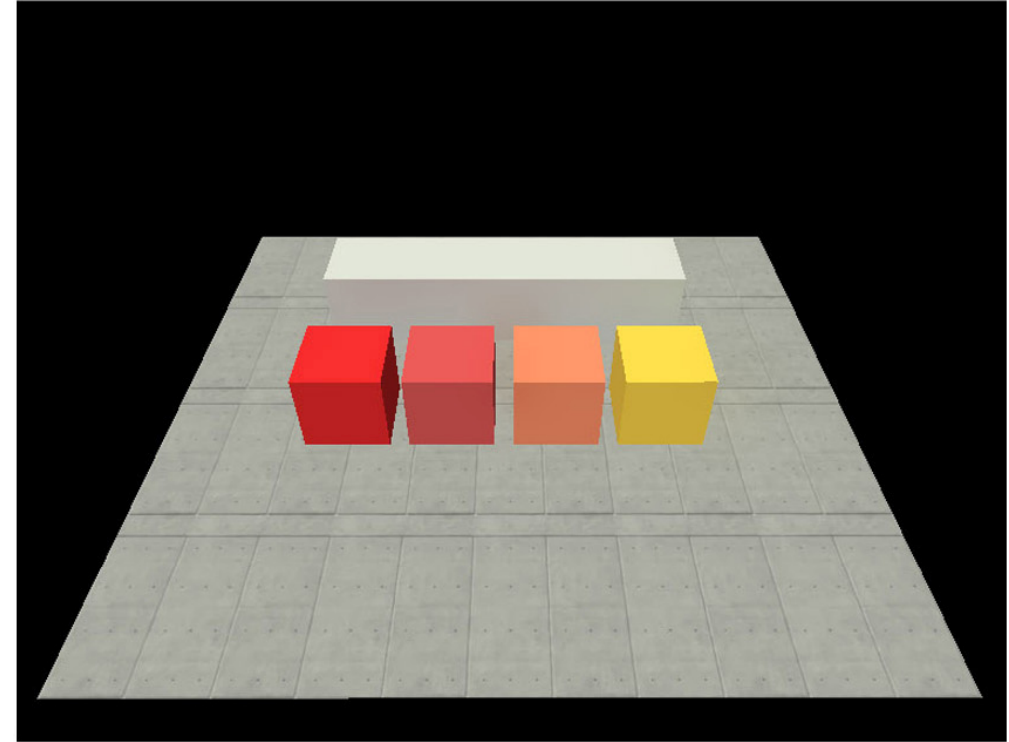
## Prologue

To import a sketchup model in Artlantis, you just have to choose, in the first window that pops up, the .skp file type, and then the program will be able to load it directly.

If everything has worked fine, you should be looking at this ->

It can be useful to keep also in mind the fact that Artlantis separate the model file and the pictures (of the textures) when it saves (sketchup put everything together in a kind of archive).

So, if you don't want to be surprised by a large amount of picture files around your model .atl, just place it directly in a folder of it's own, since the beginning, and everything will just be fine.





## Prologue

The software interface is, honestly, quite simple.

The right window shows a real time preview of your render. Navigation inside this space is close to the sketchup one.

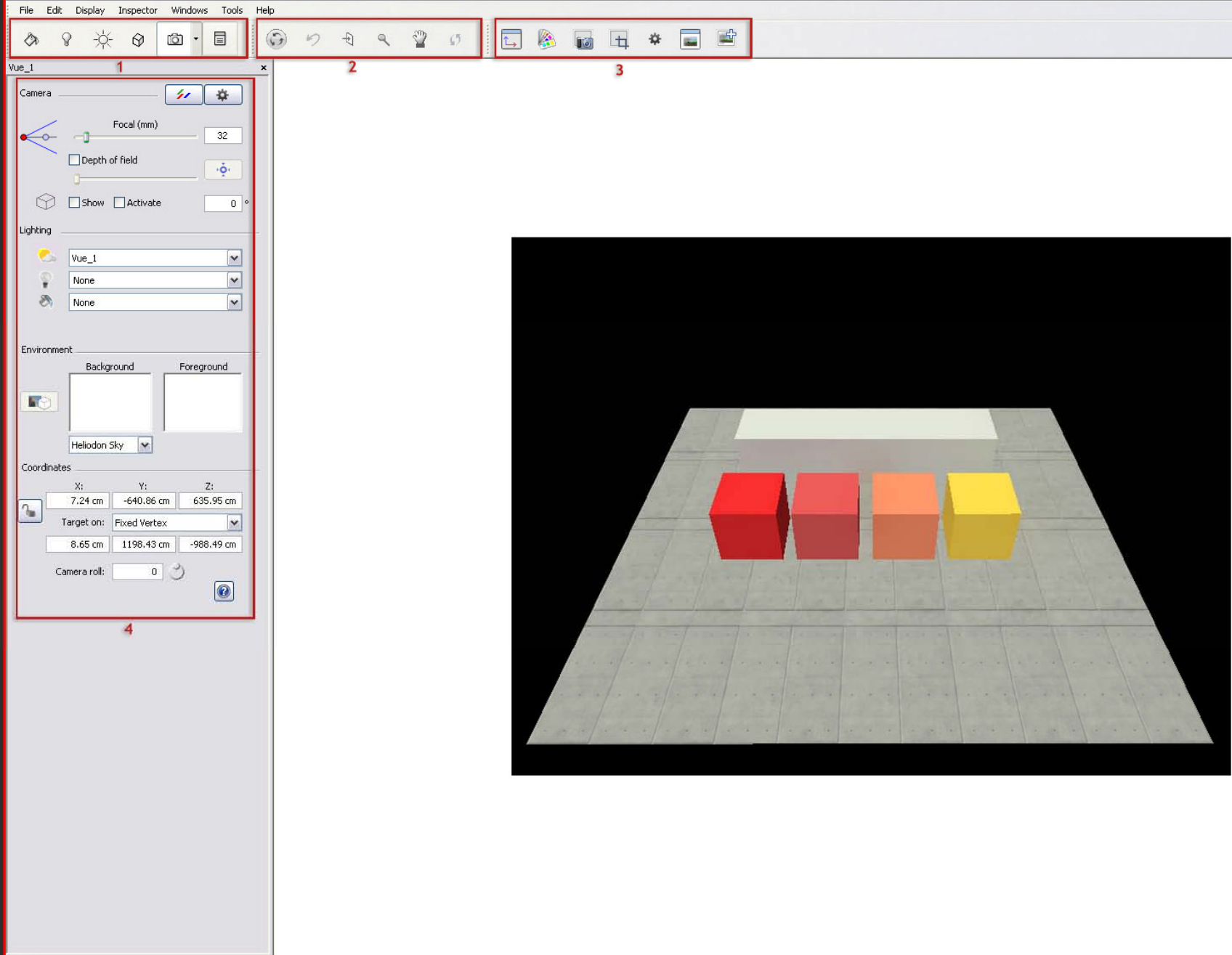
There are four principal toolbars:

1. Main settings categories (sun, cameras, materials...).

2. Navigation tools (zoom, rotate...). The first button disabled the real time rendering, allowing quick manipulation s of the model.

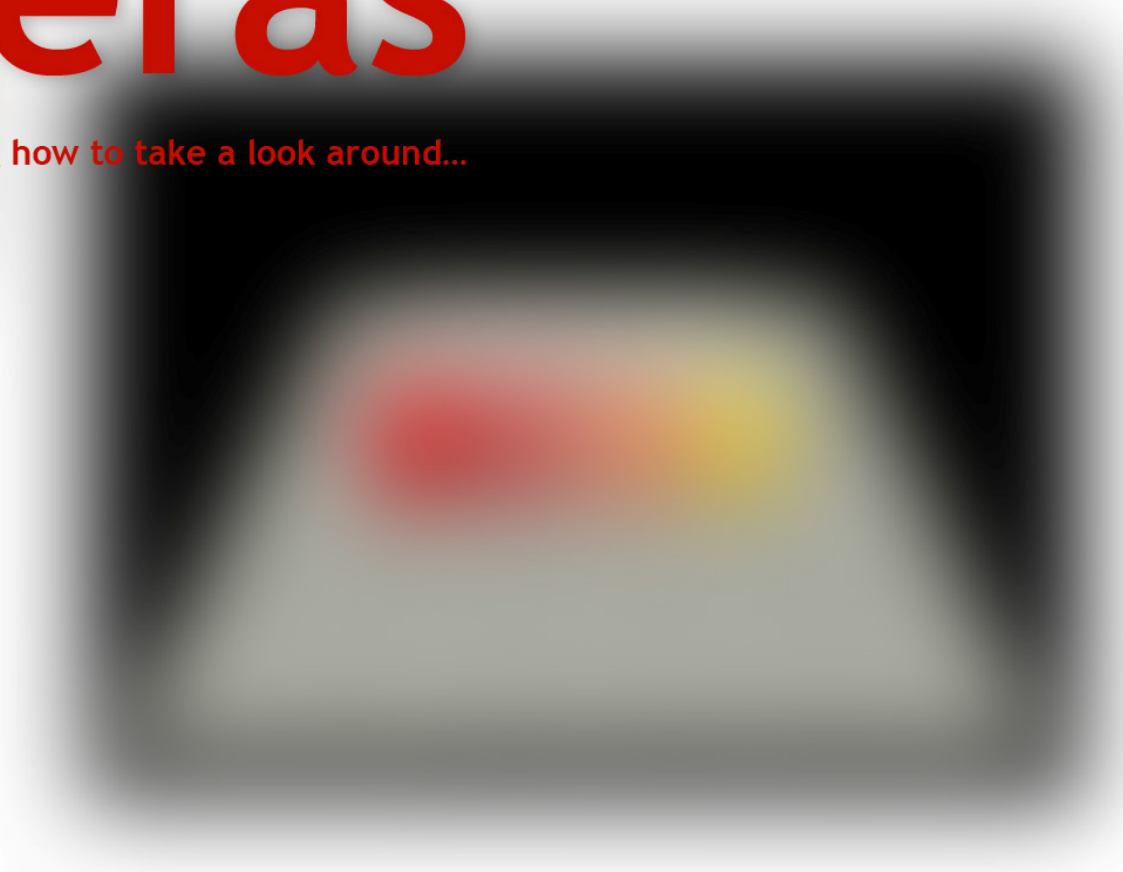
3. Rendering and view options.

4. Multipurpose toolbar, where all operations will be done. It's changing according to the type of element selected (sun, materials...)



# Cameras

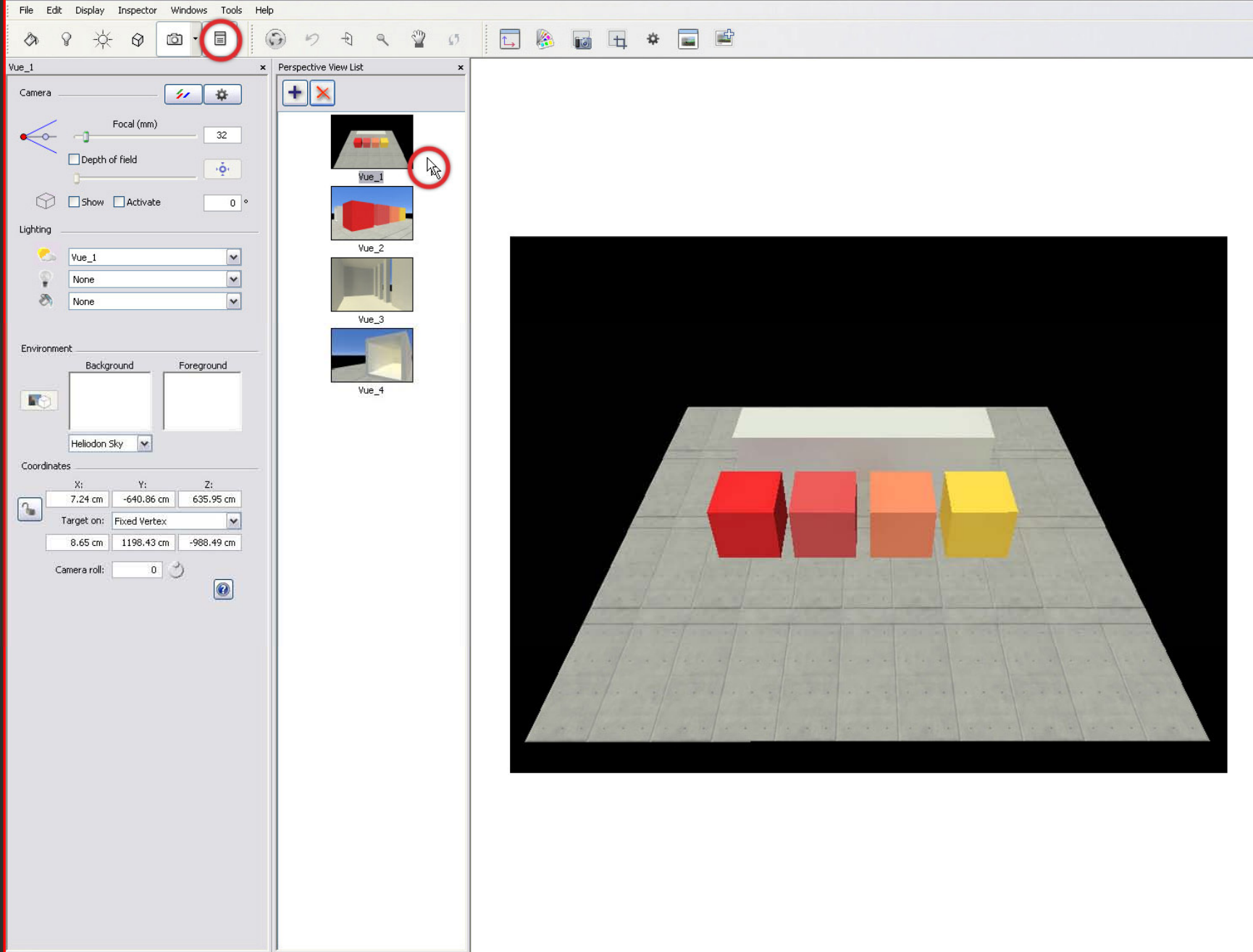
Knowing how to take a look around...



## Cameras

A render first required the choice of a point of view. In Artlantis, they are displayed as cameras, that you can find in the highly necessary side panel.

Displayed views are related to the sketchup scenes. However, do not panic if your model does not have any scenes (everyone made mistakes...), Artlantis automatically creates one camera called 'Sketchup', matching your last viewpoint.



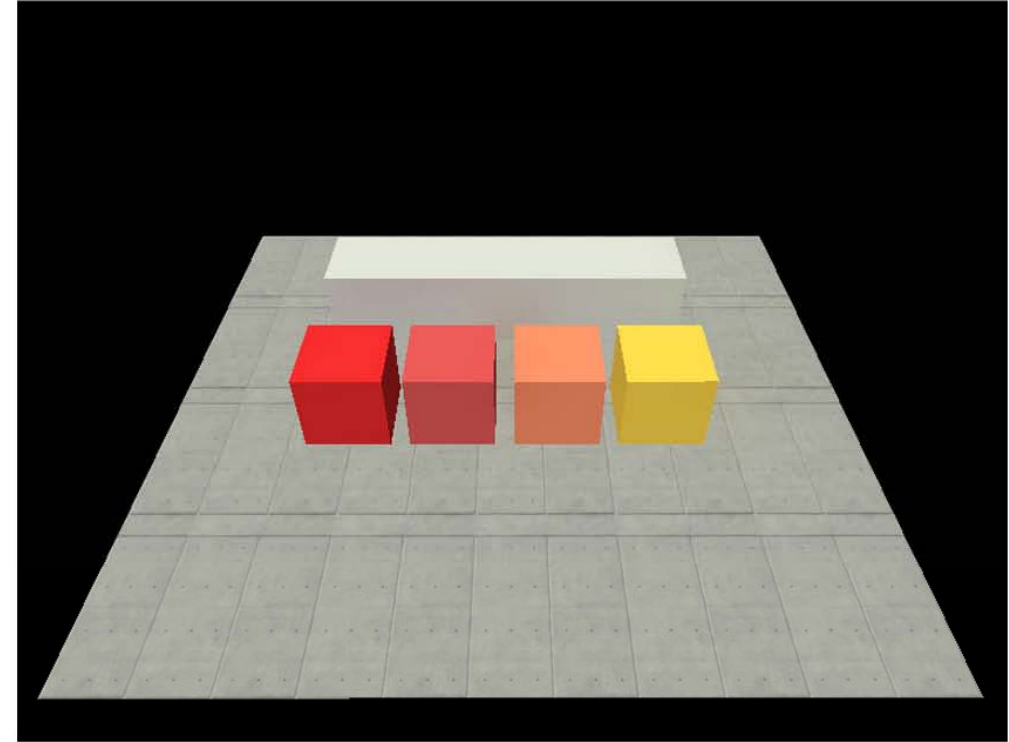
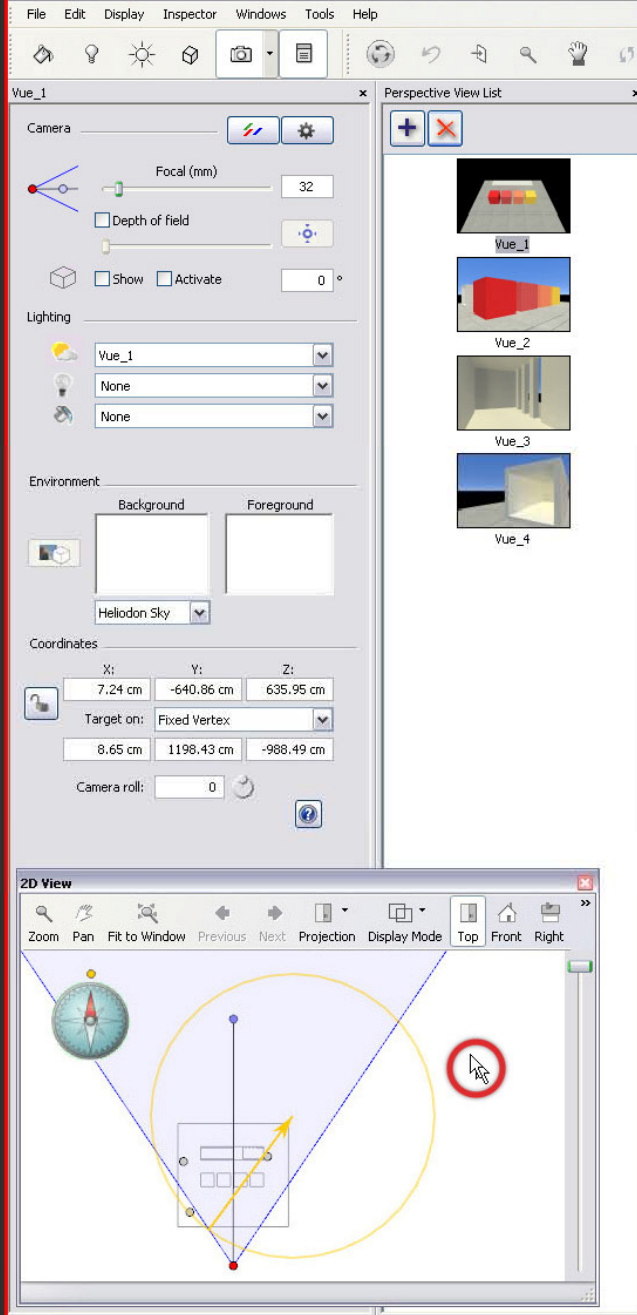
## Cameras

Navigate in space and moving the camera are (at first) two linked operations.

So, in order not to loose a good point of view while sightseeing, it's necessary to create a copy of a camera already set up, by pressing the '+' icon ( a new thumbnail is then added to the menu).

Finding and manipulating precisely a camera is made easier by the use of the 2D view, in which the active one is displayed as a small red dot.

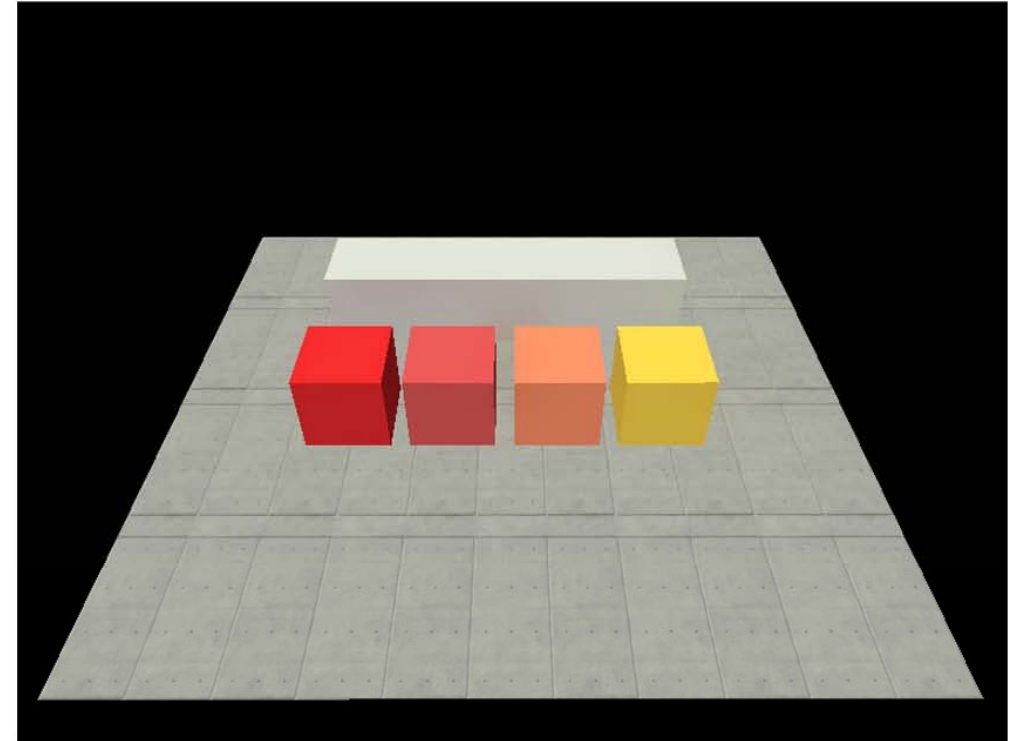
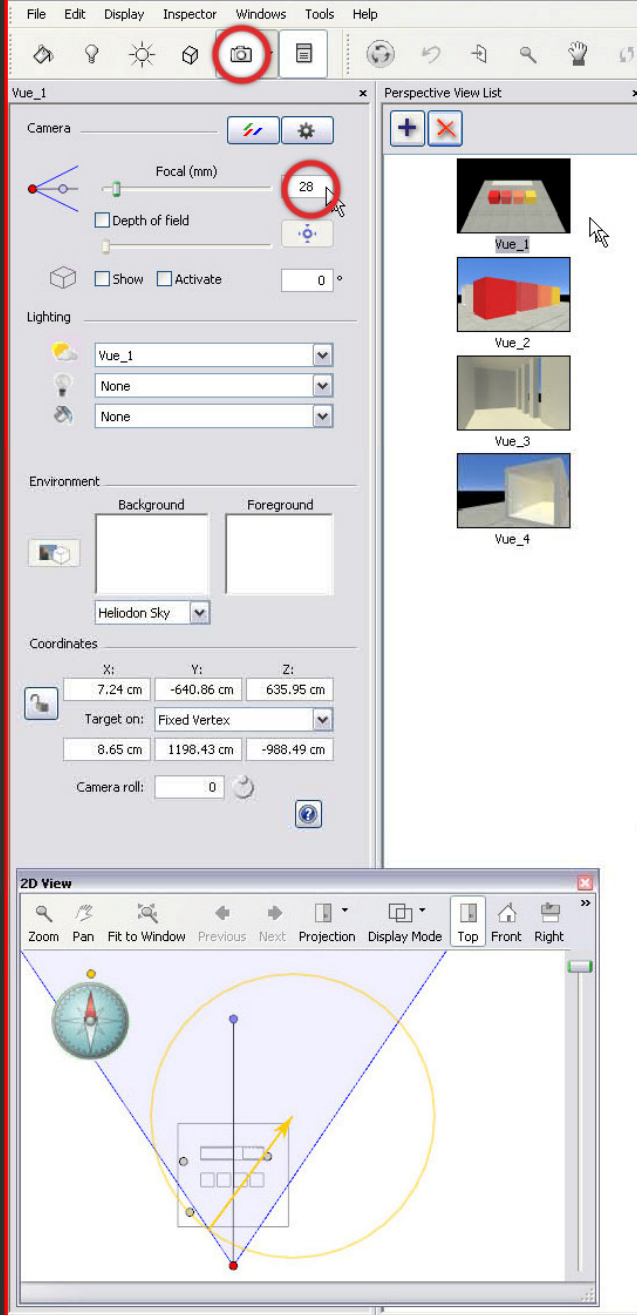
This panel is able to display different views (plan, façade...), useful in the coming steps.



## Cameras

Every camera has its own focal, which can be easily adjusted, from a pan view to a zoom.

Unfortunately focal angles are the only things that do not travel well from sketchup to Artlantis, and you will have to readjust them by hand to get a satisfying result...

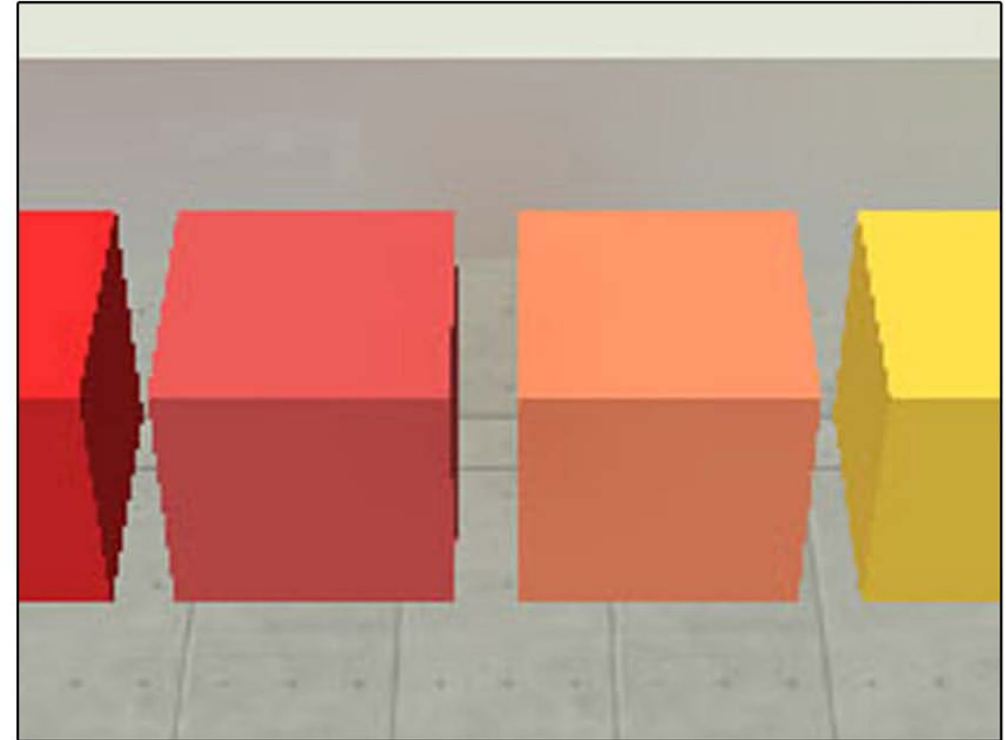
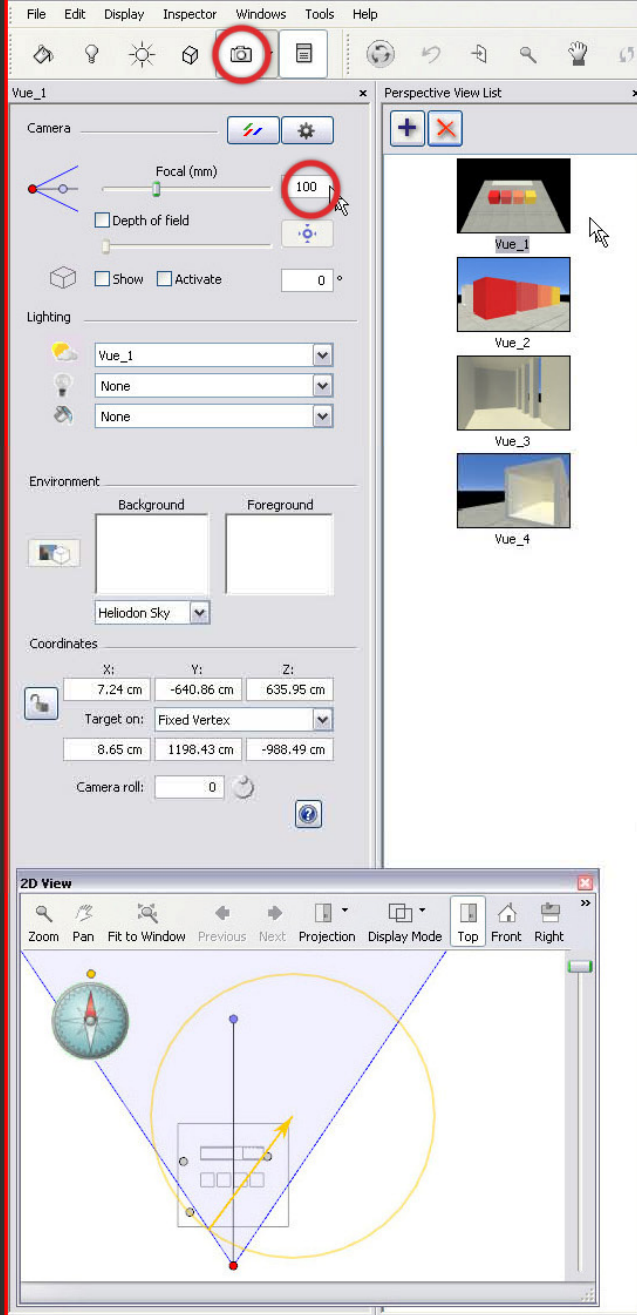




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# Sun

The first step in light realism...

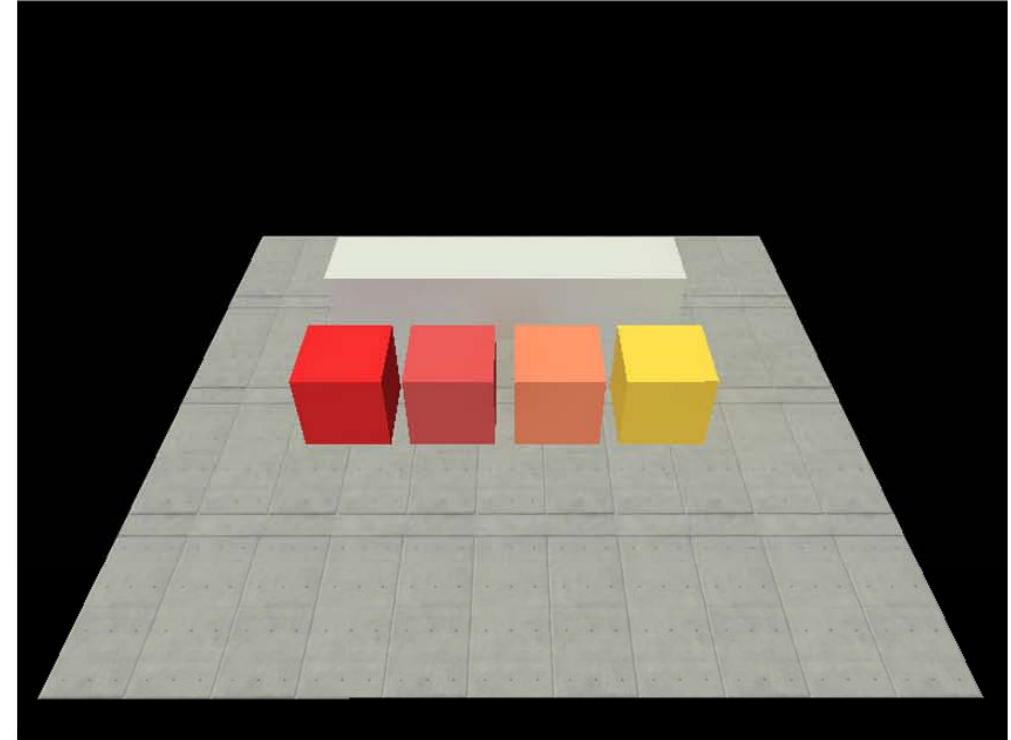
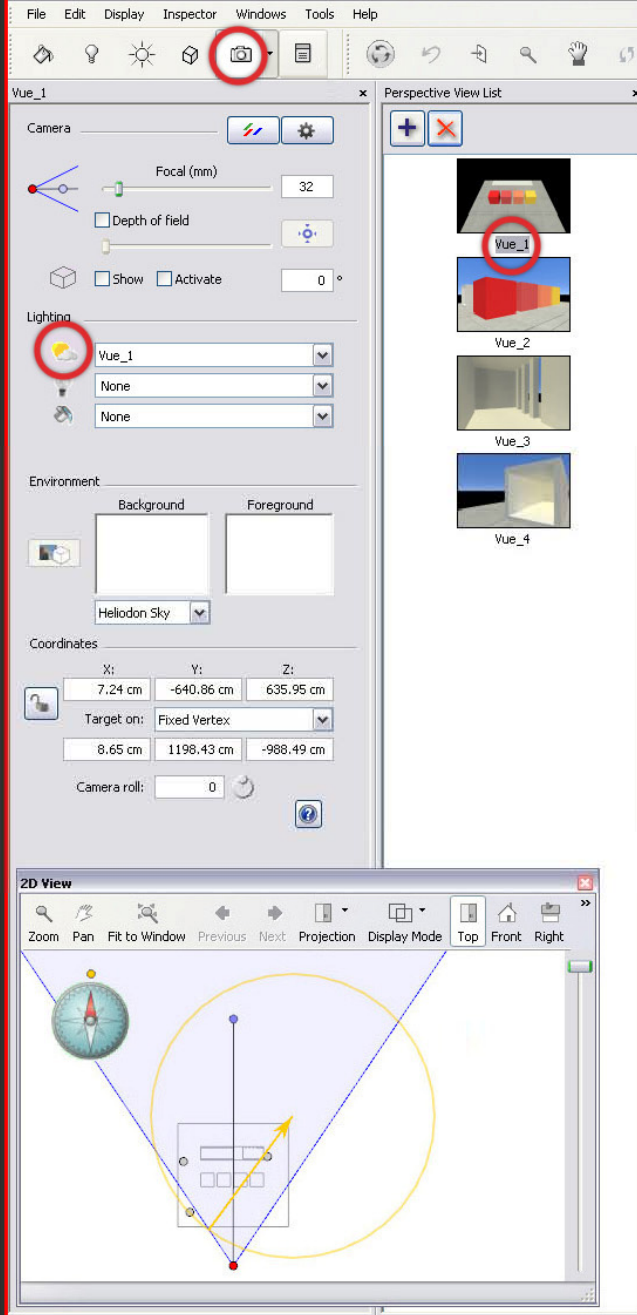


## Sun

When you know what to look at, you can move on creating a realistic environment. In that way, the sun is the first thing to set up properly.

For each camera there is a sun: in our example, the camera 'view 1' is linked to the sun 'view 1', and it goes the same for the other ones.

Through the menu, it's then possible to assign any sun to any camera, regarding to what suits best for your render (for example, let us be crazy, camera 'View4' with sun 'view 2').

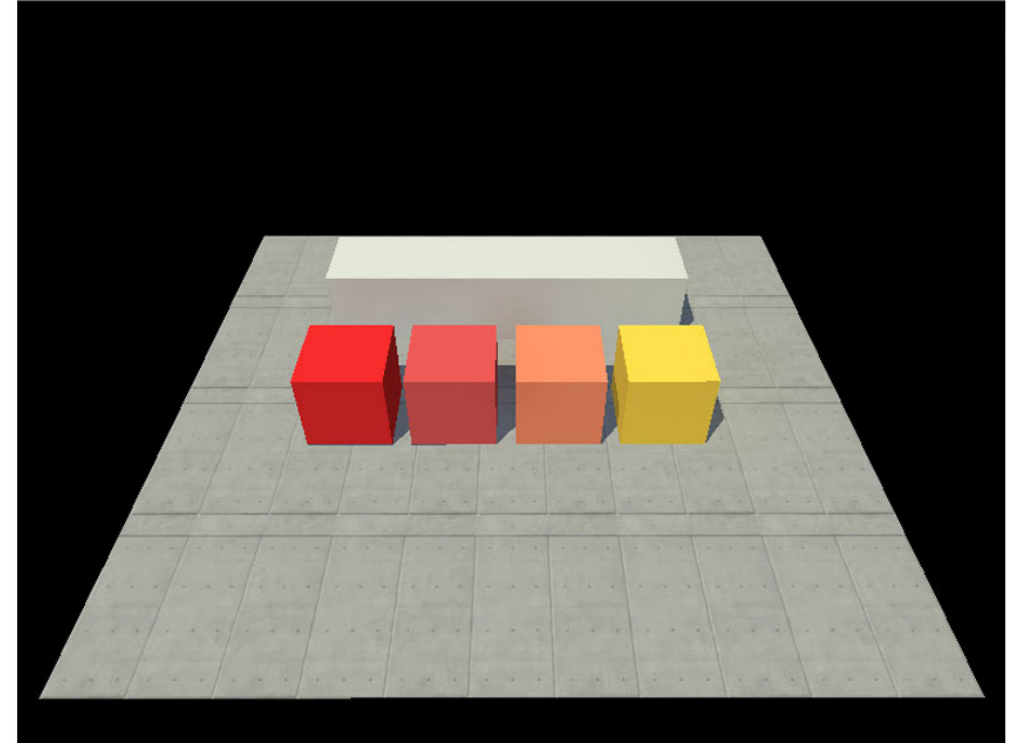
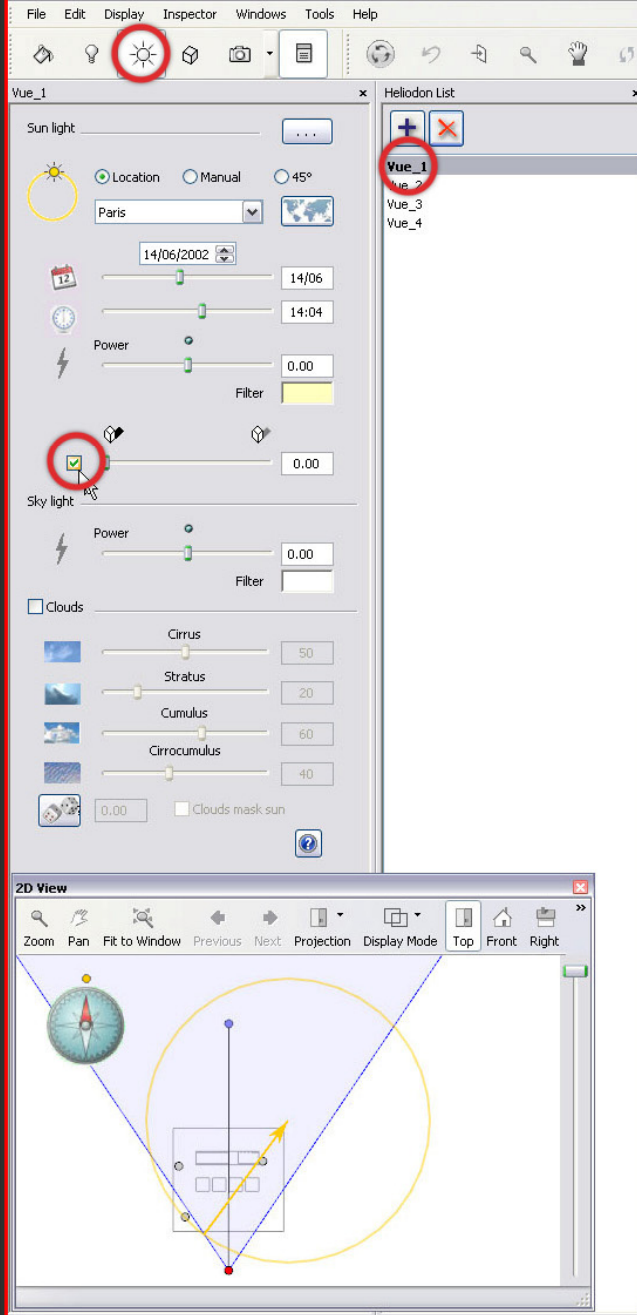


## Sun

Similar to the camera menu, the sun menu shows in the right columns the list of those present in the scene. Again, pressing '+' add a new one in the menu.

In order to see clearly the real effect of the sun, enabling the shadows is obviously necessary.

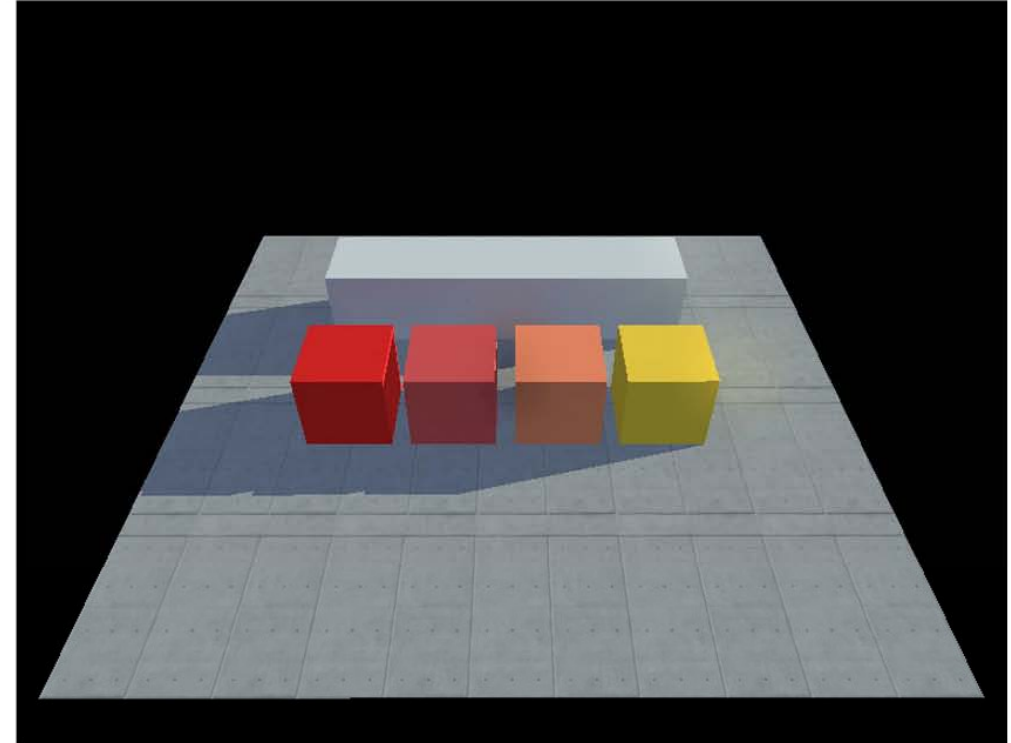
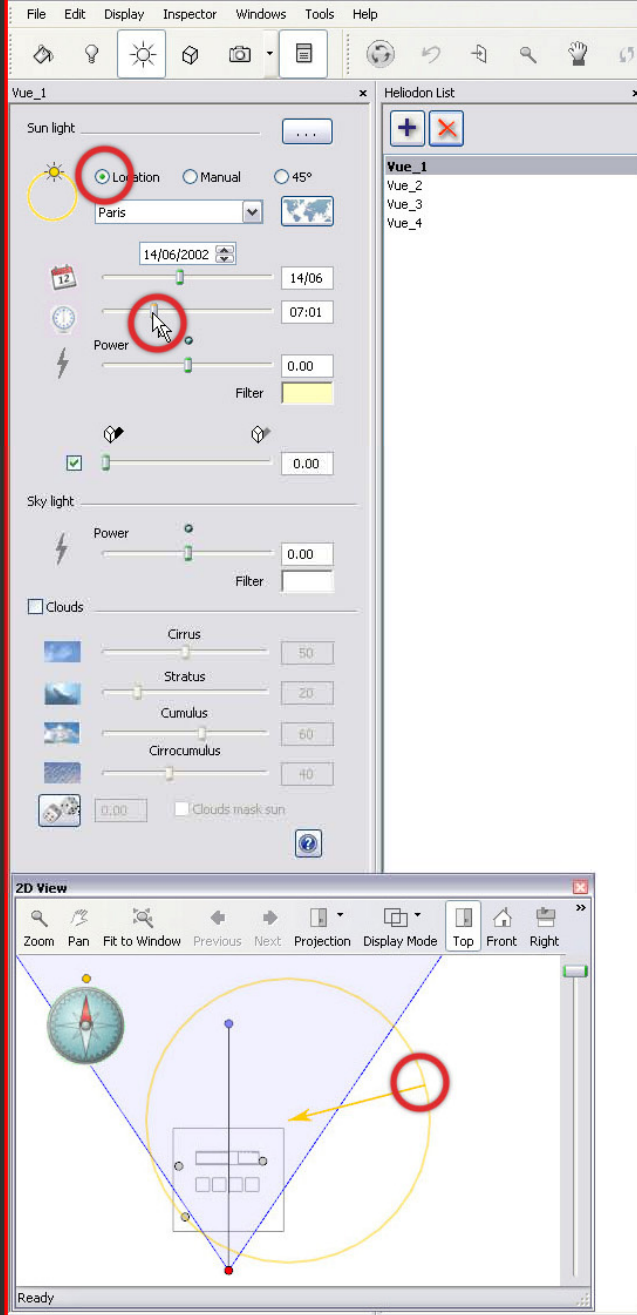
A slider allows an adjustment of their sharpness, from strong (like in sketchup), to smooth (much more realistic)



## Sun

Using the sun required an adjustment of some parameters (date, time, location...) through the first icons and sliders of the toolbar ( if you don't understand by yourself how they works, sorry, but you'd better stop reading this tutorial right now...).

By the way, the 2D view also shows the sun position, as such as the north angle, so it's possible to adjust it there.





## Sun

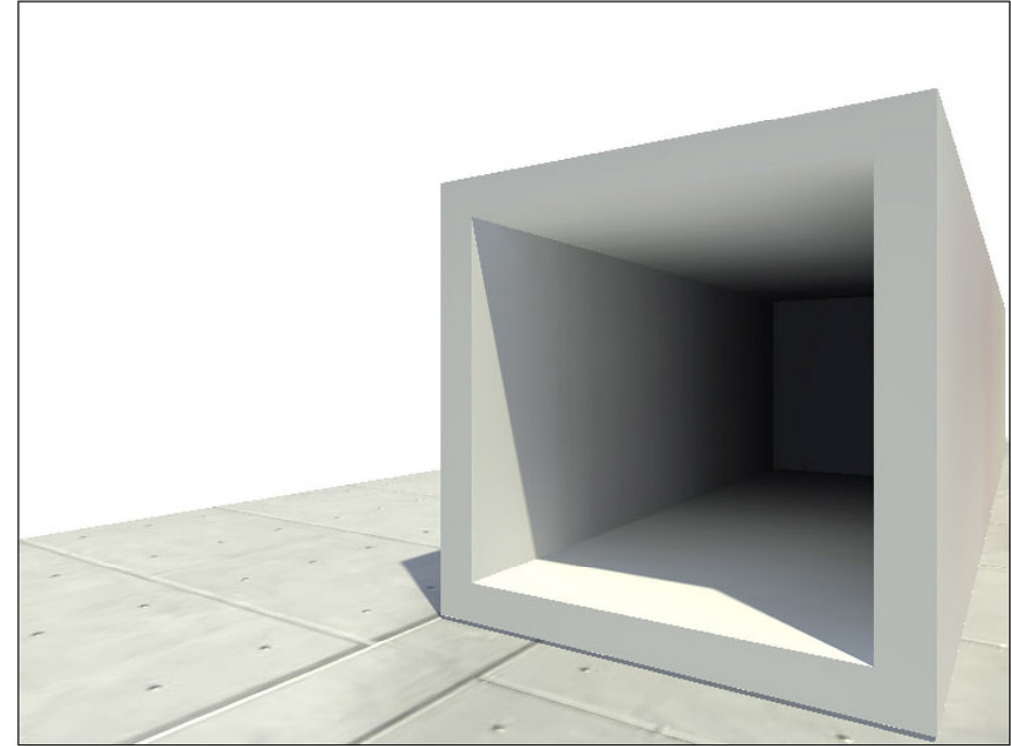
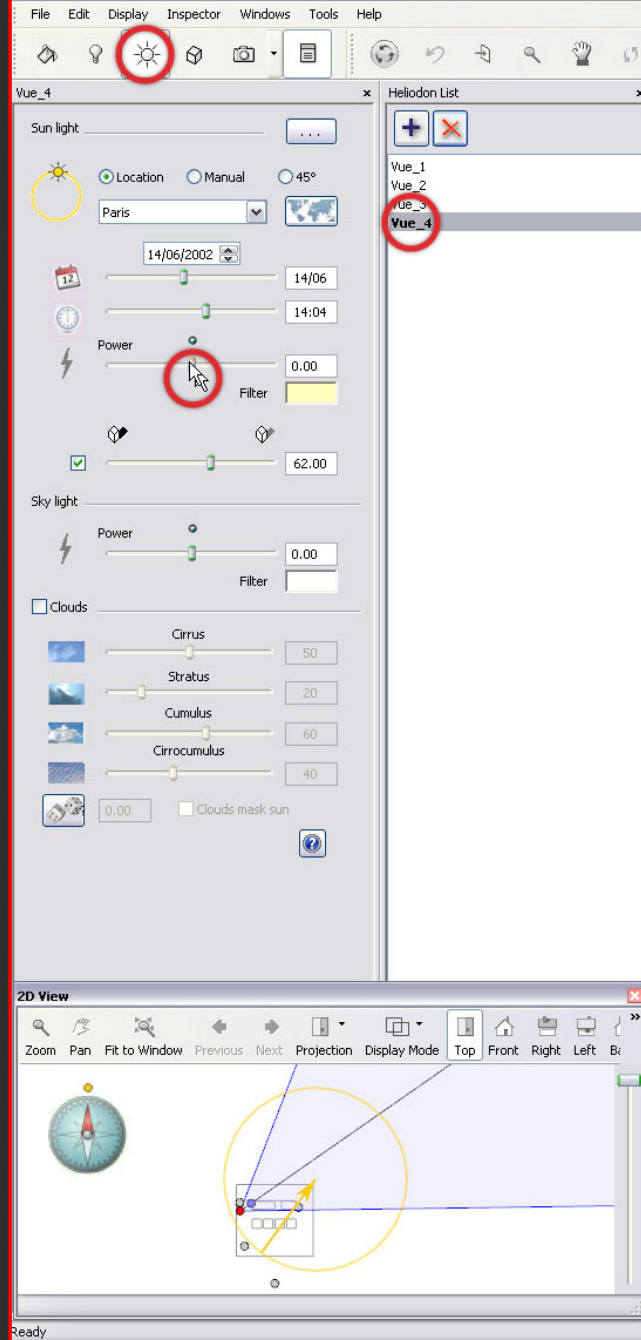
A 'natural' outside lighting solution is made of two separate elements:

- The sun : a direct light that create clearly defined shadows.

- The sky : a diffuse uniform light emit by a dome surrounding the model.

The sky light allows a much more realistic illumination of the area non directly hit by a sun ray (shadows, in fact...)

Intensity of both sun and sky are linked directly to dates and time settings, but it's possible to overwrite them through some sliders.



## Sun

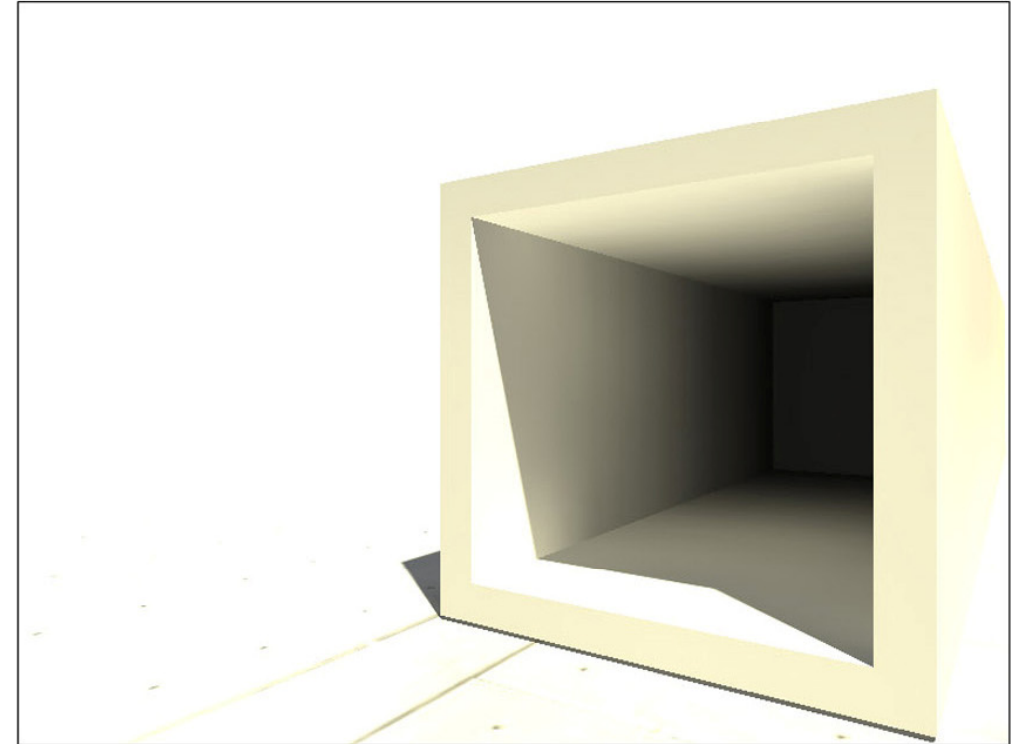
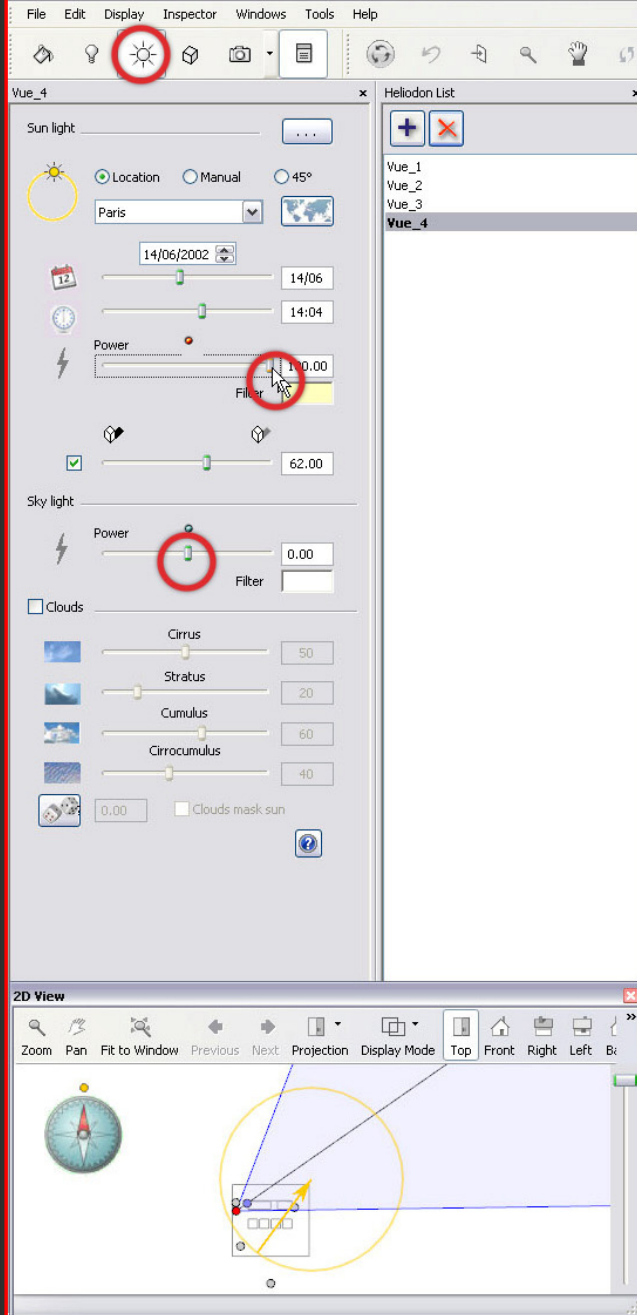
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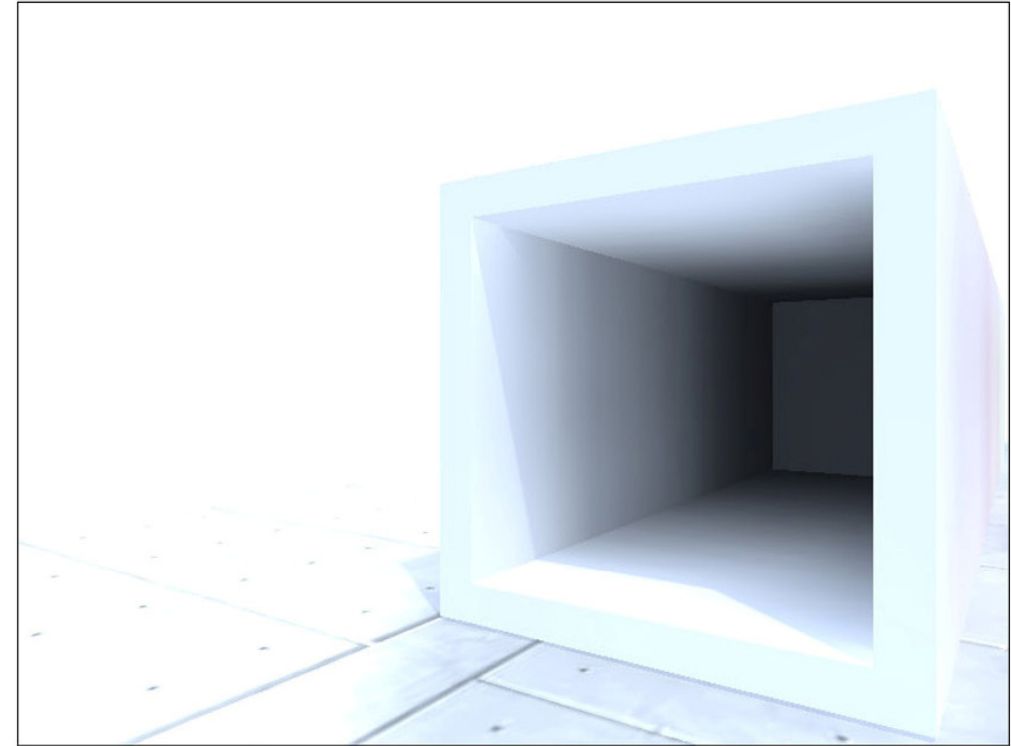
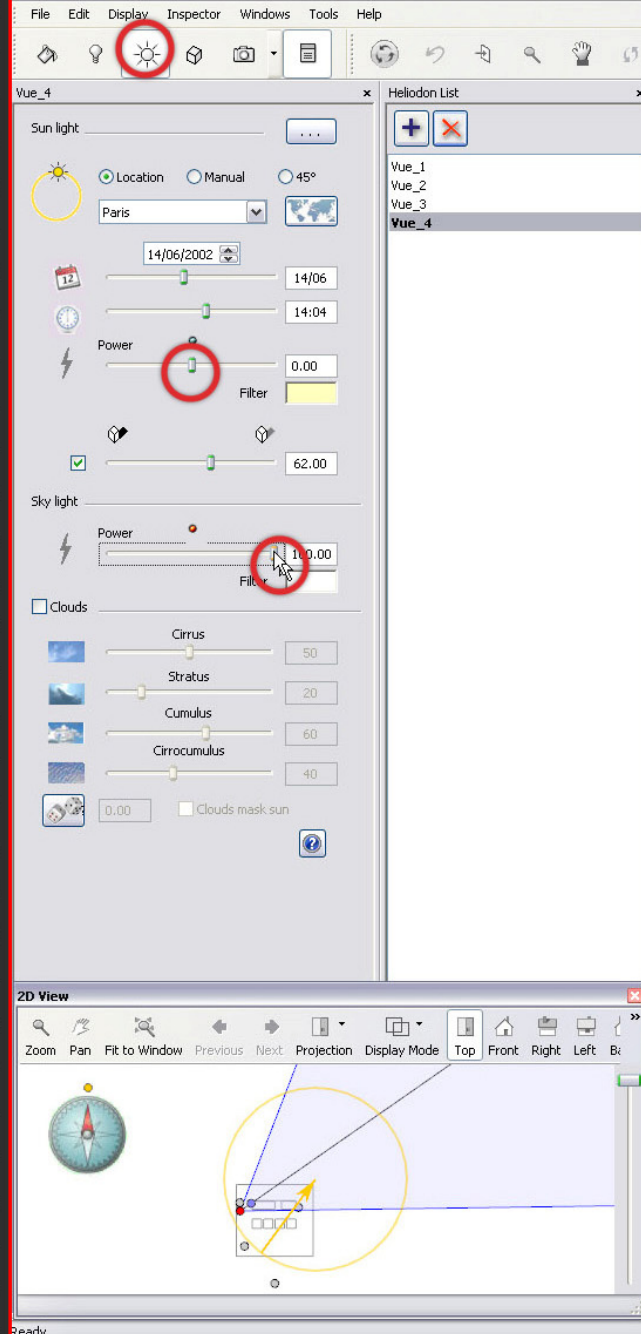
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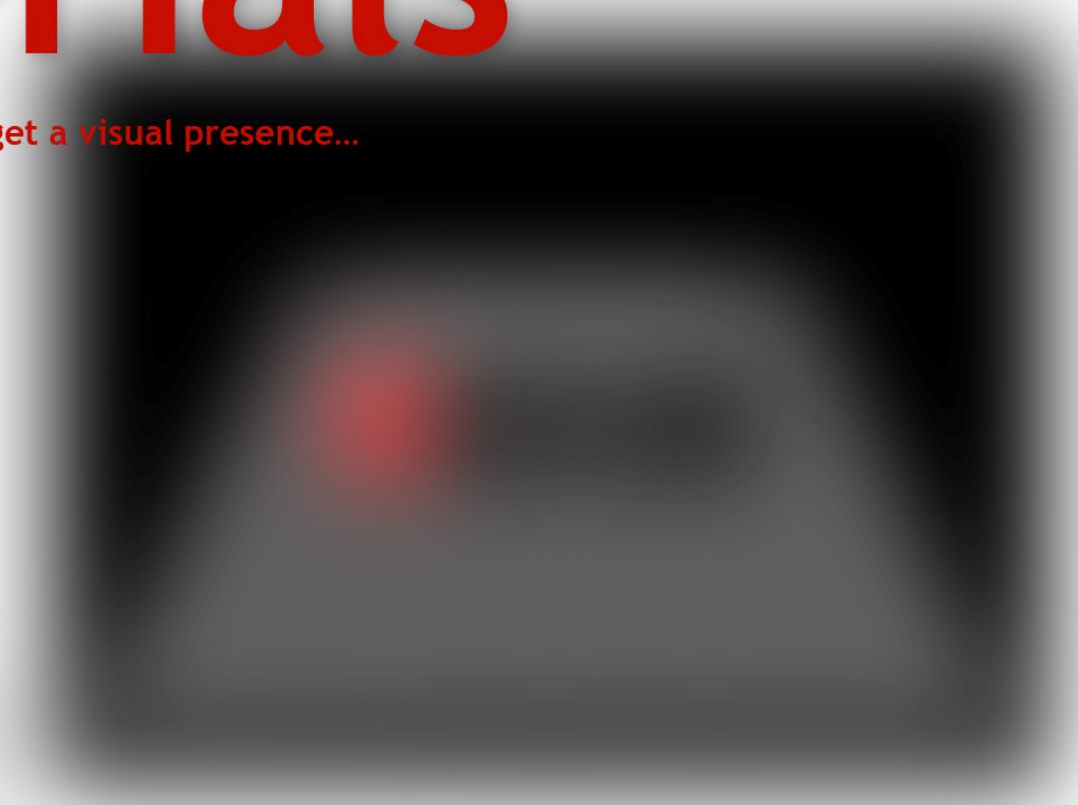
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# Materials

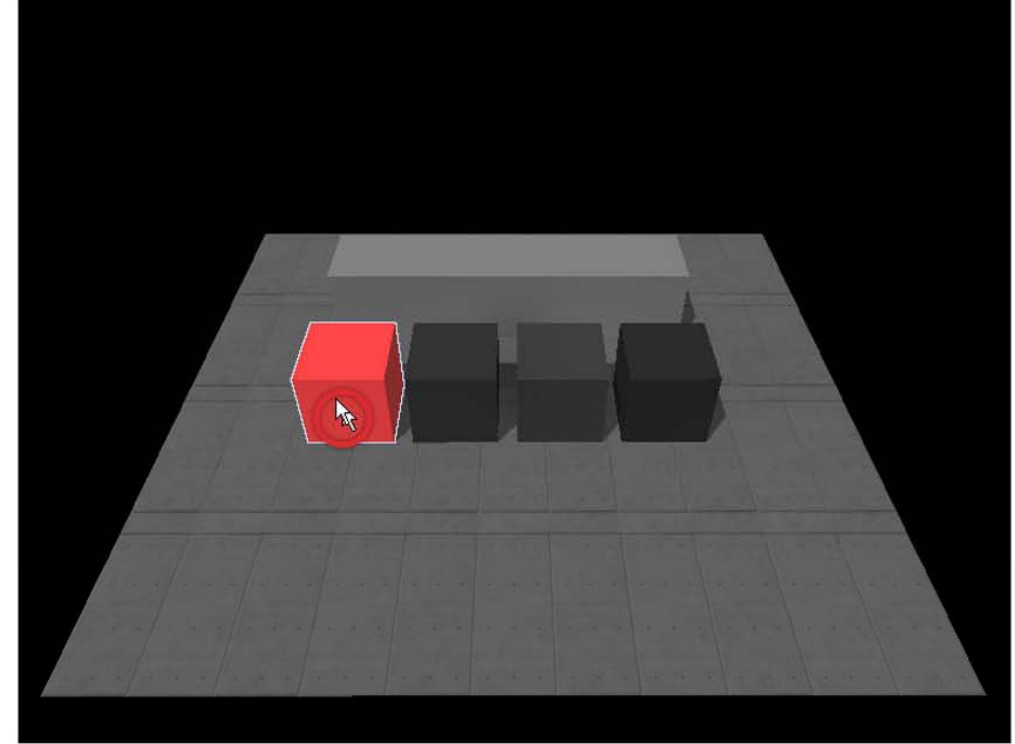
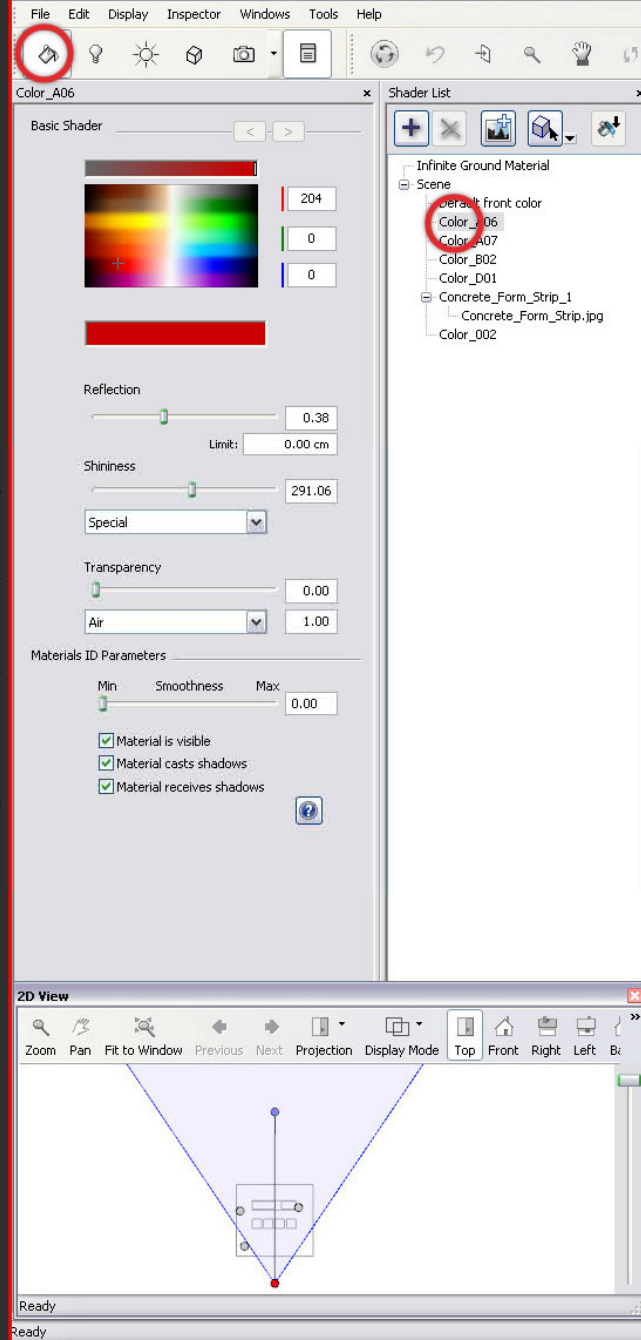
So things get a visual presence...



# Materials

Playing with the sun light is useless if the represented objects have no style, so...

The selection of a material is made by a simple click on a geometry in the model view, or directly through the menu (but then you have to know already the name of the material, and it's often not the case...).





# Materials

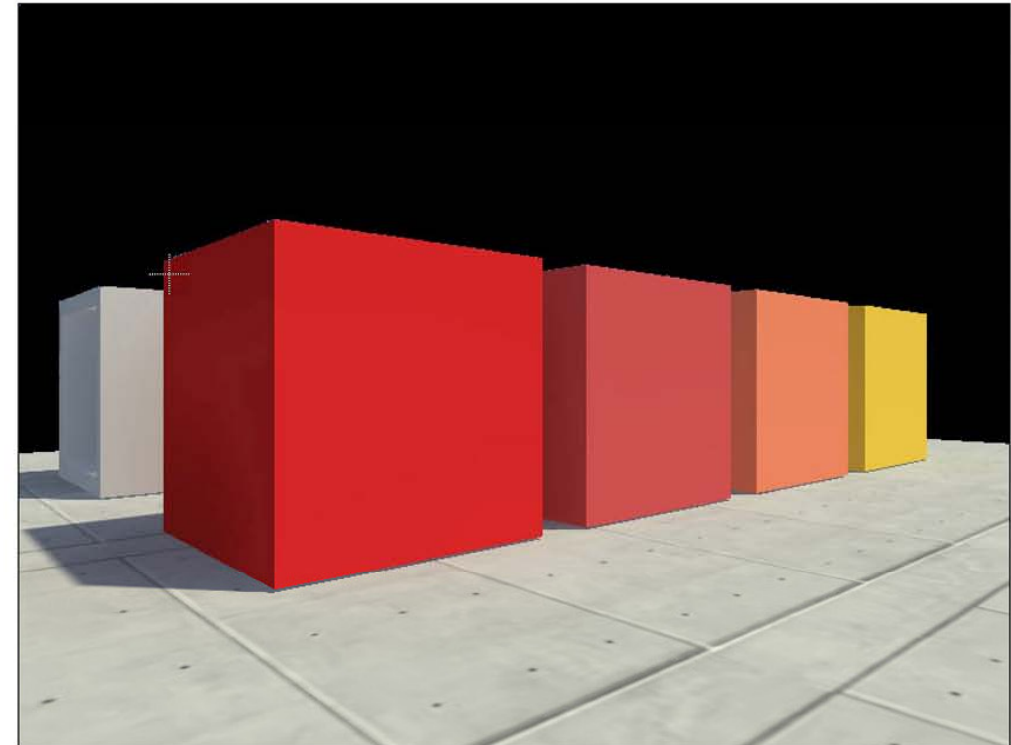
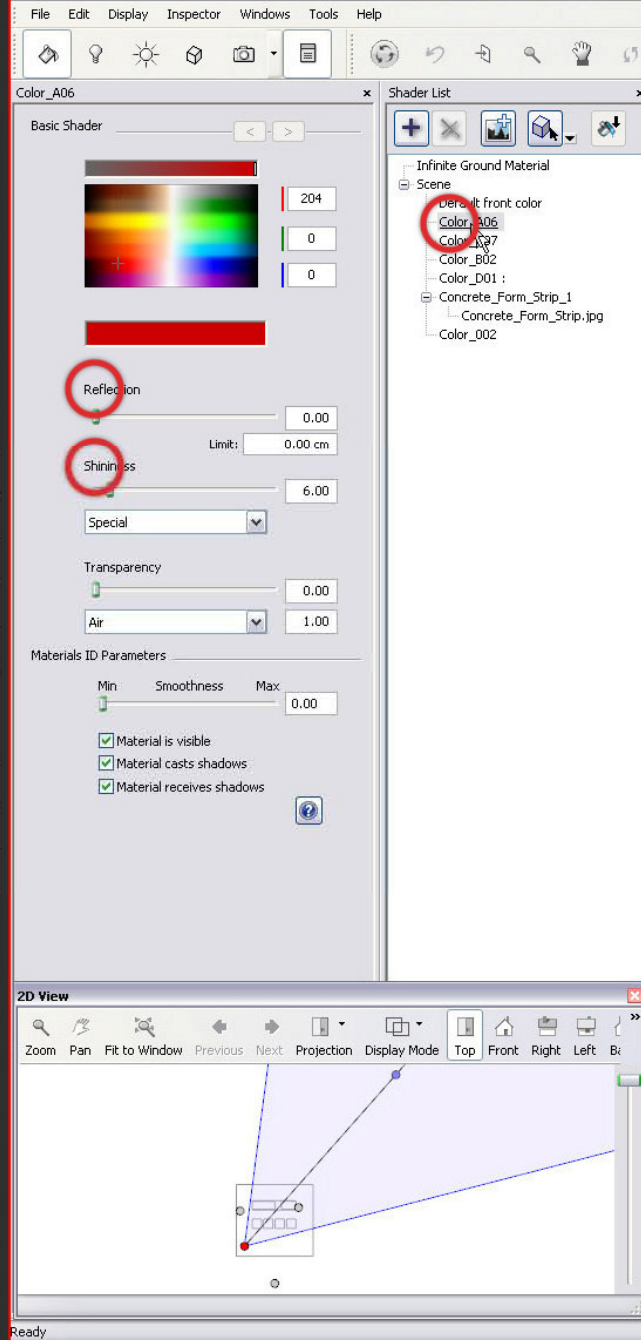
One of the main element that bring realism to a material is its level of reflection, and the quality of this one.

Those parameters are directly adjusted by two sliders in the toolbar:

-Reflection : Allows adjustments from a barely reflective surface to a complete mirror

-Shininess : Changed the quality of the reflection, bigger value enhancing its quality.

Transparency is also adjustable in the same way, and settings made in Sketchup are recognized by Artlantis.



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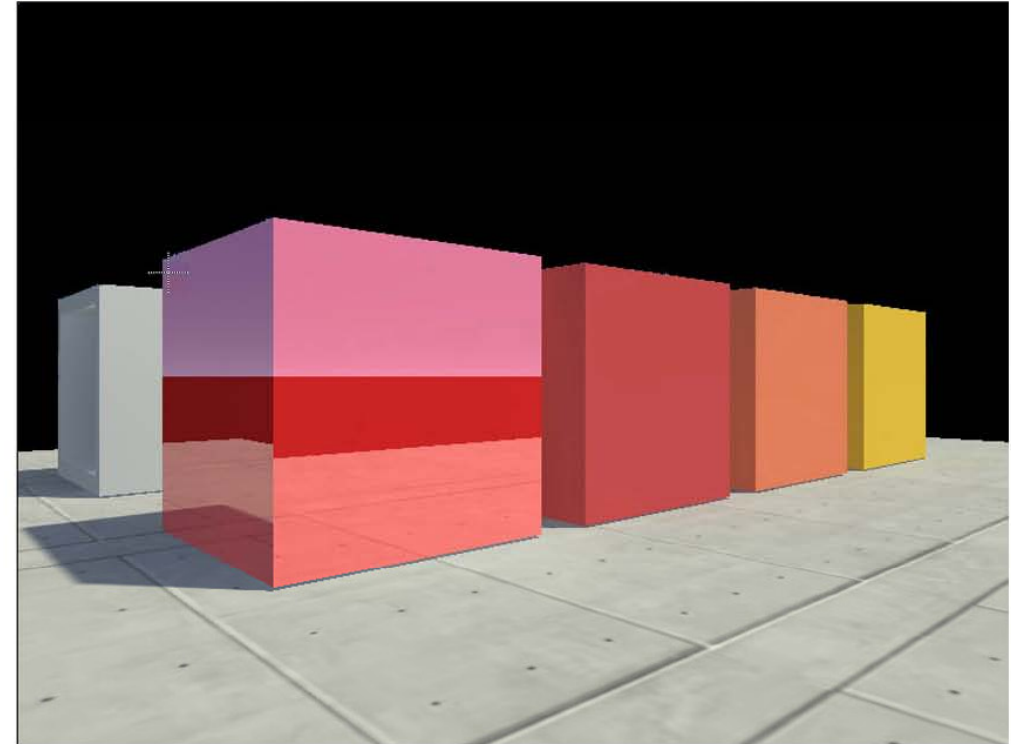
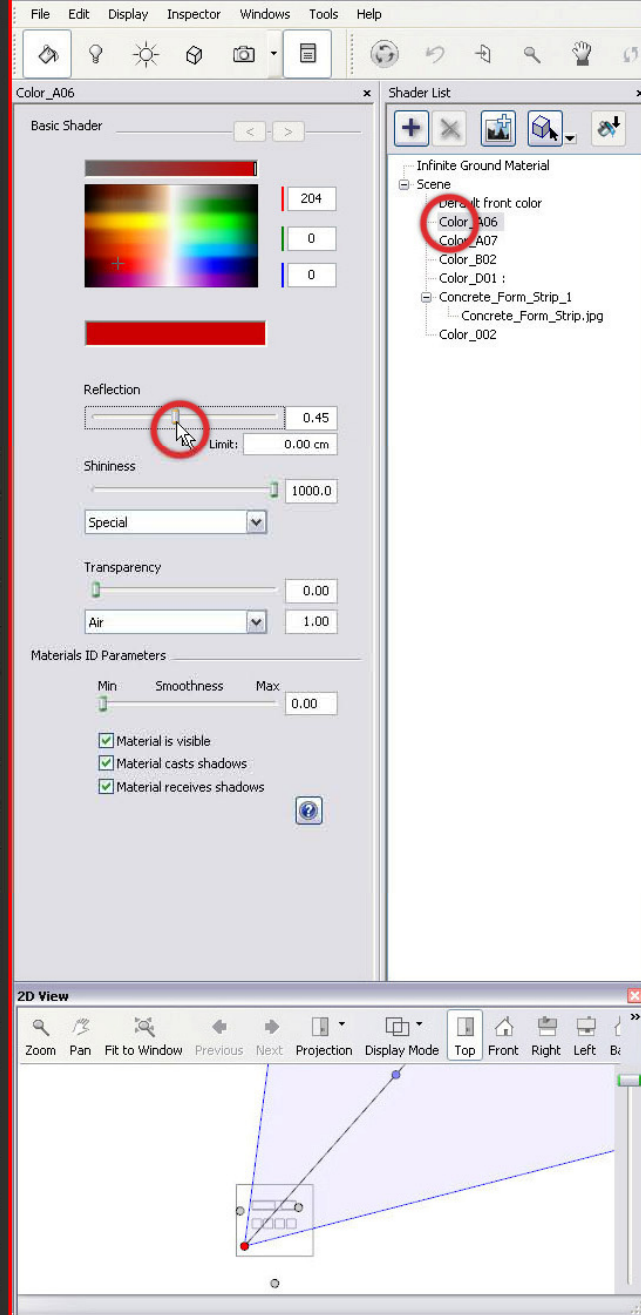
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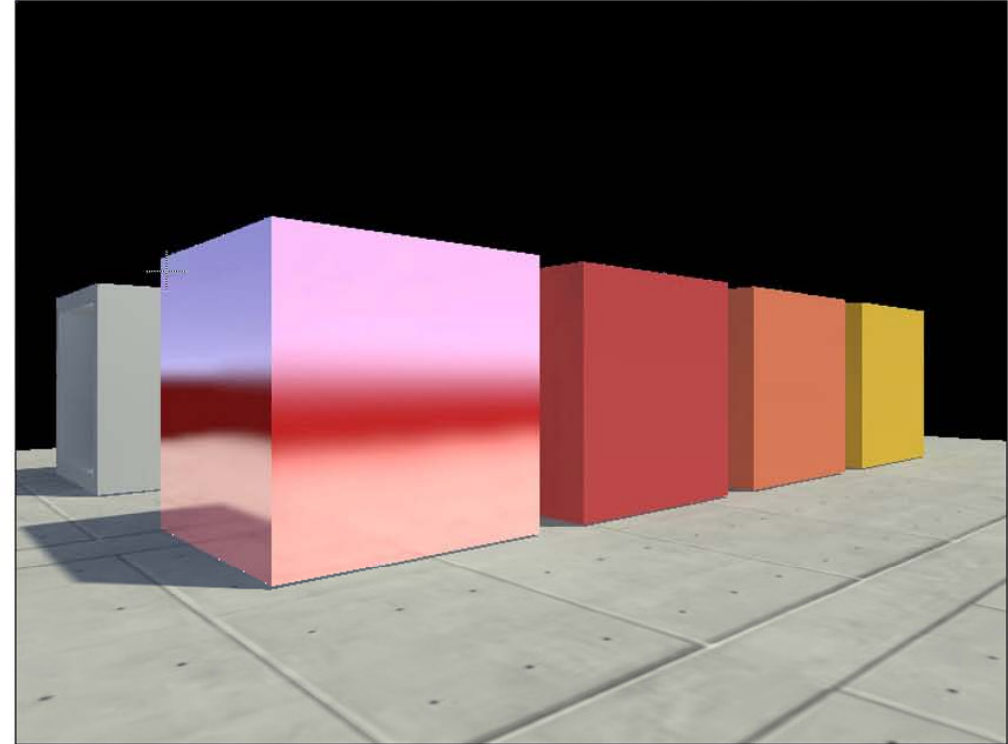
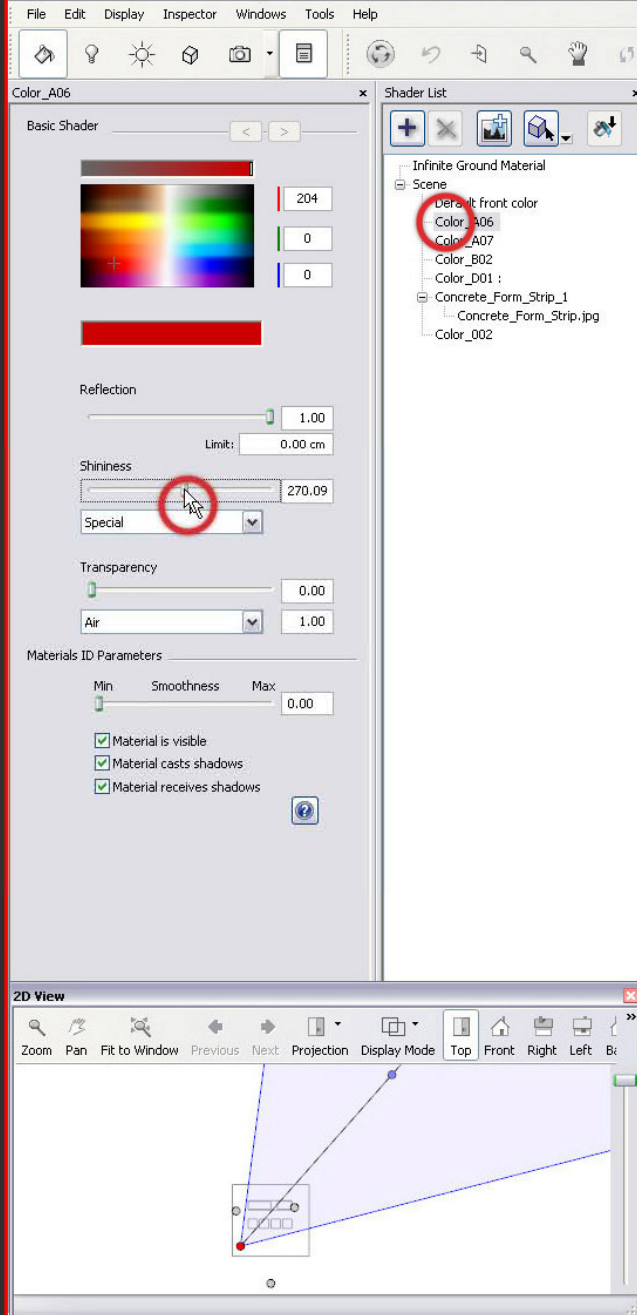
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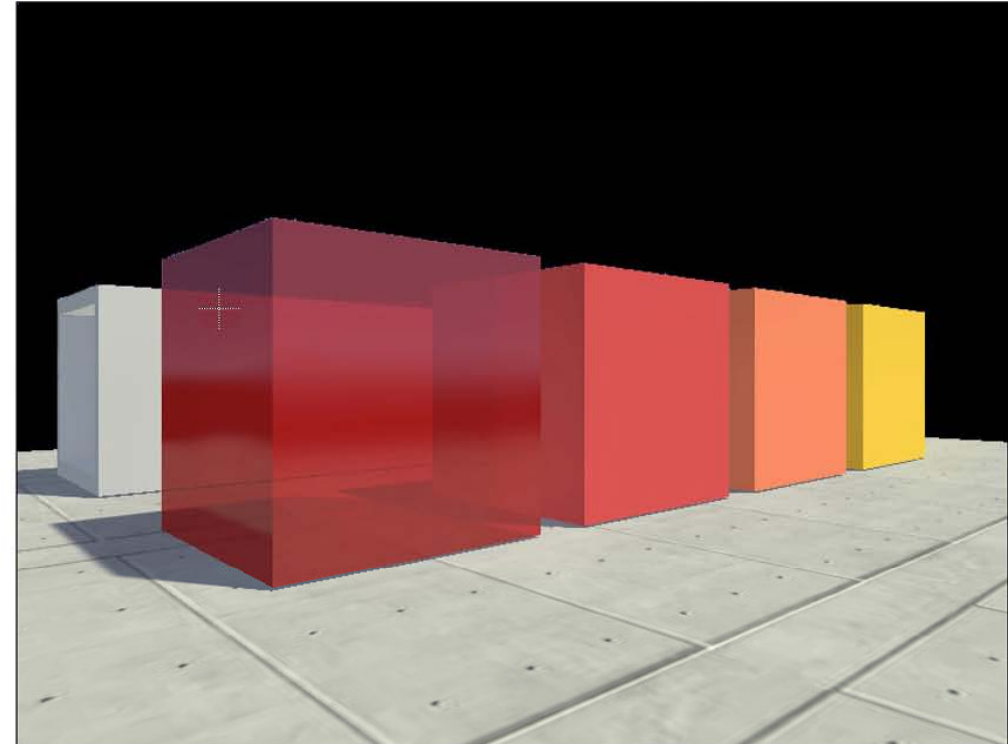
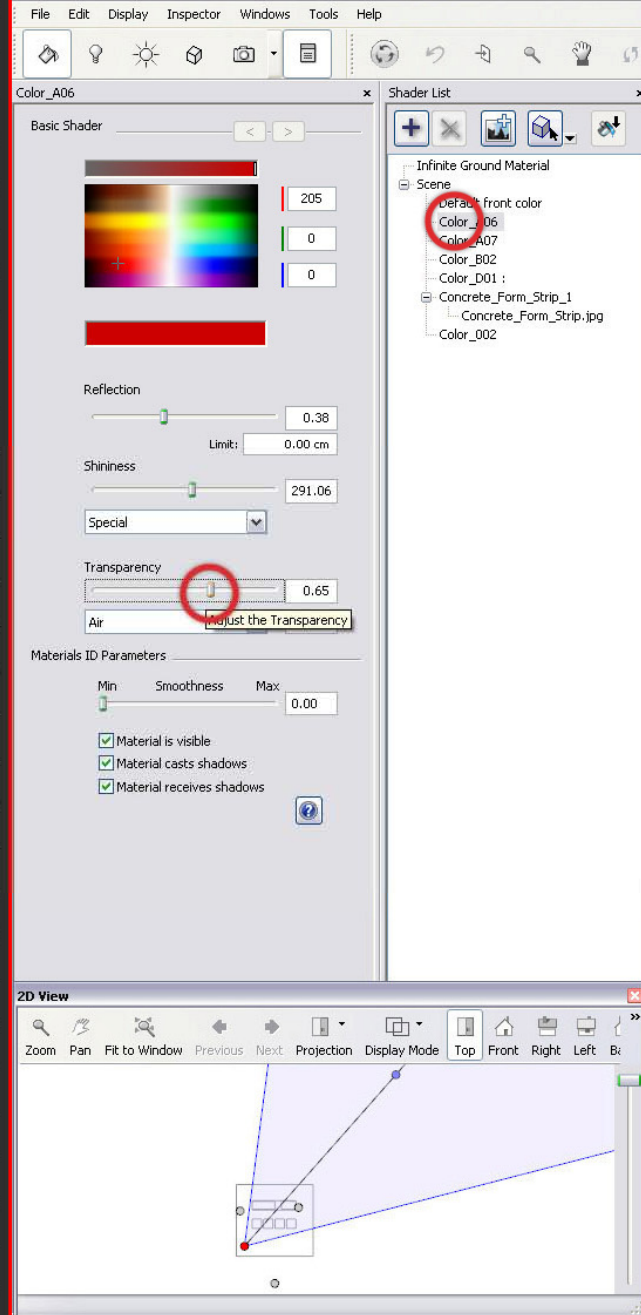
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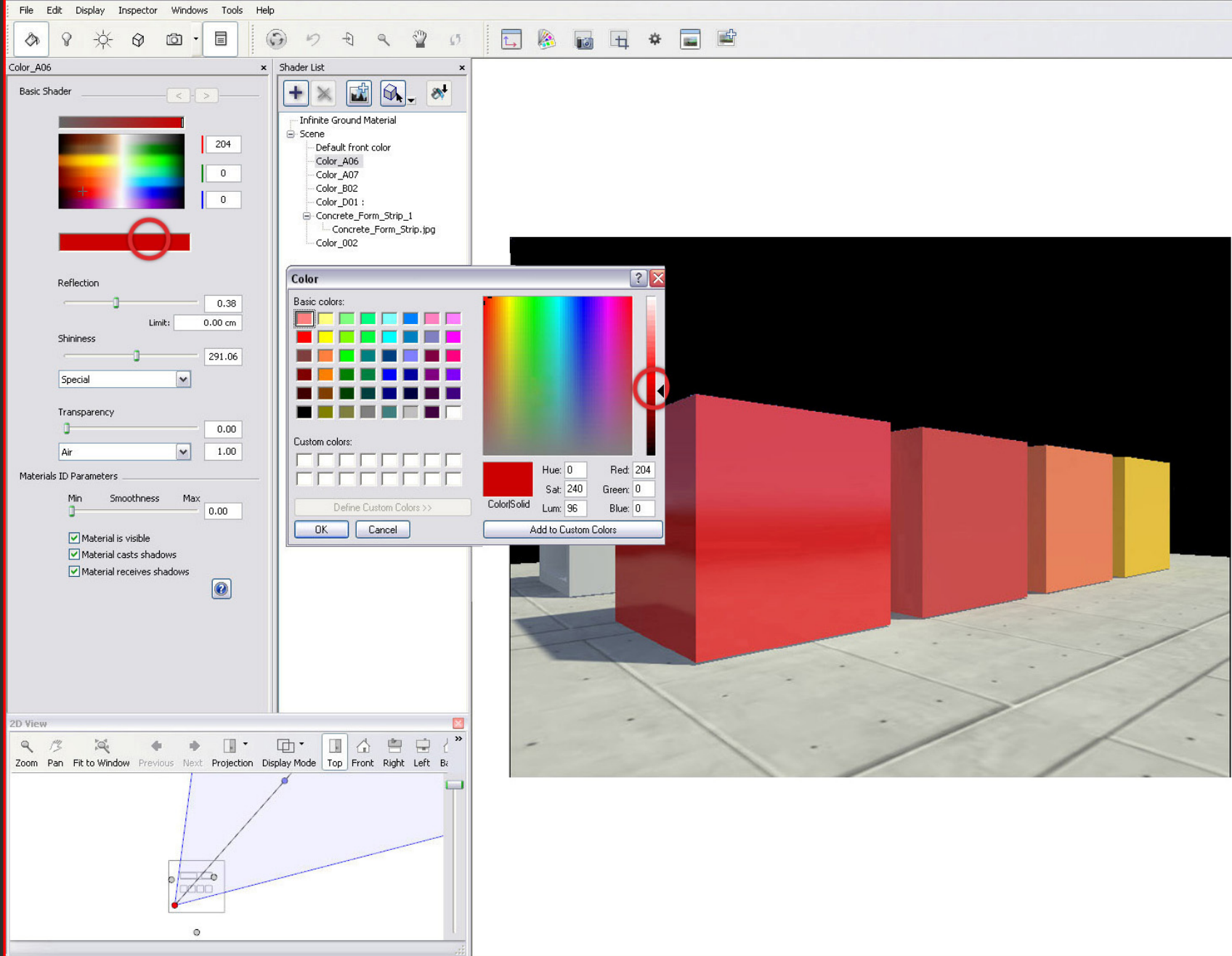
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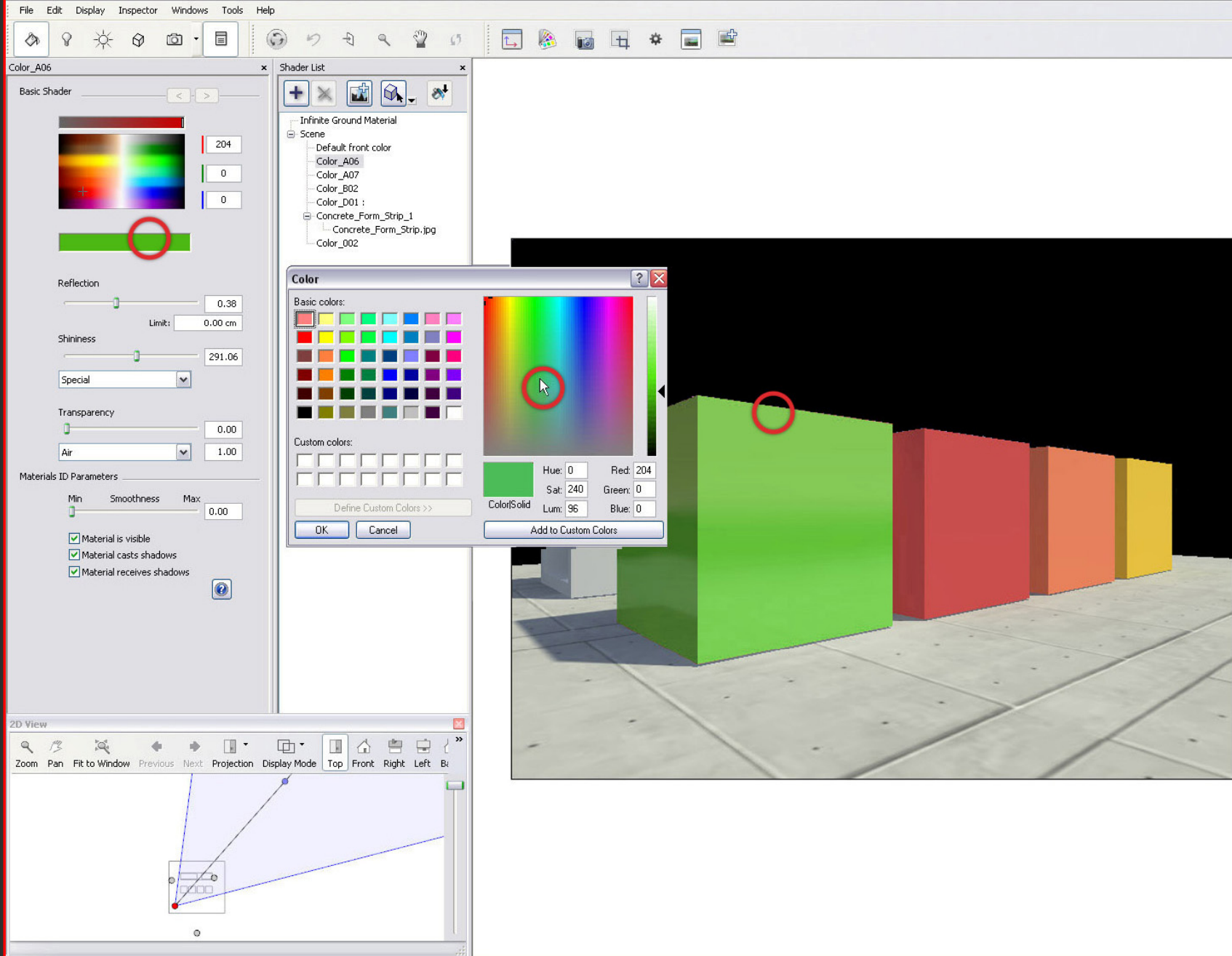
It's possible to change the tint of a material within Artlantis, a right click on the colored panel making appear a color chart.





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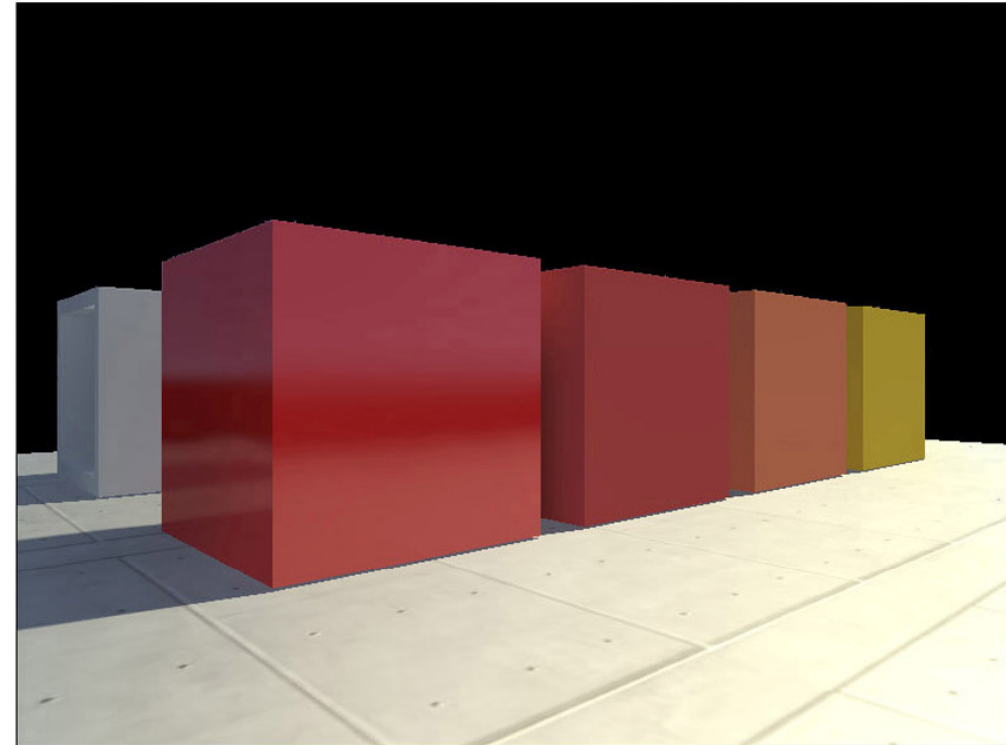
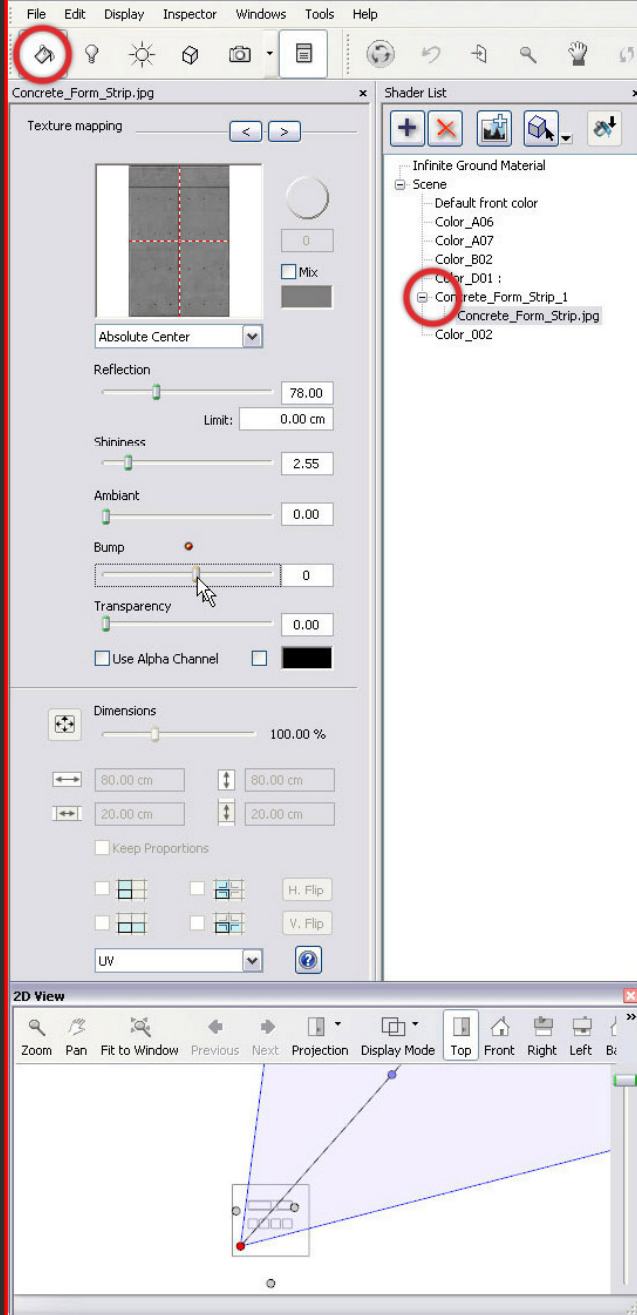
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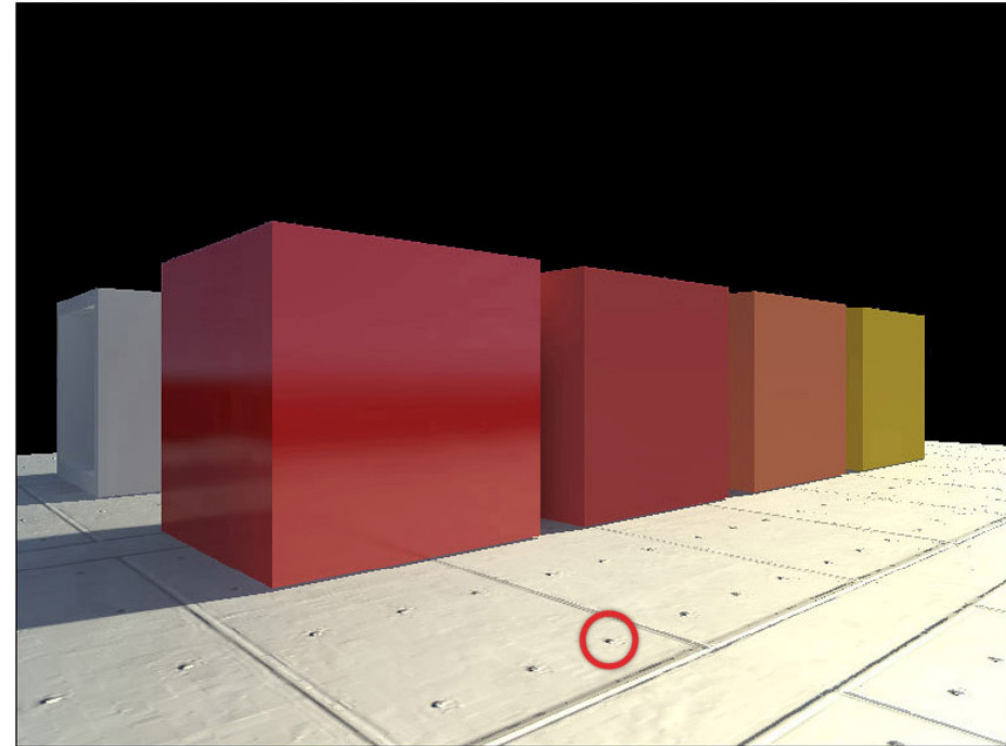
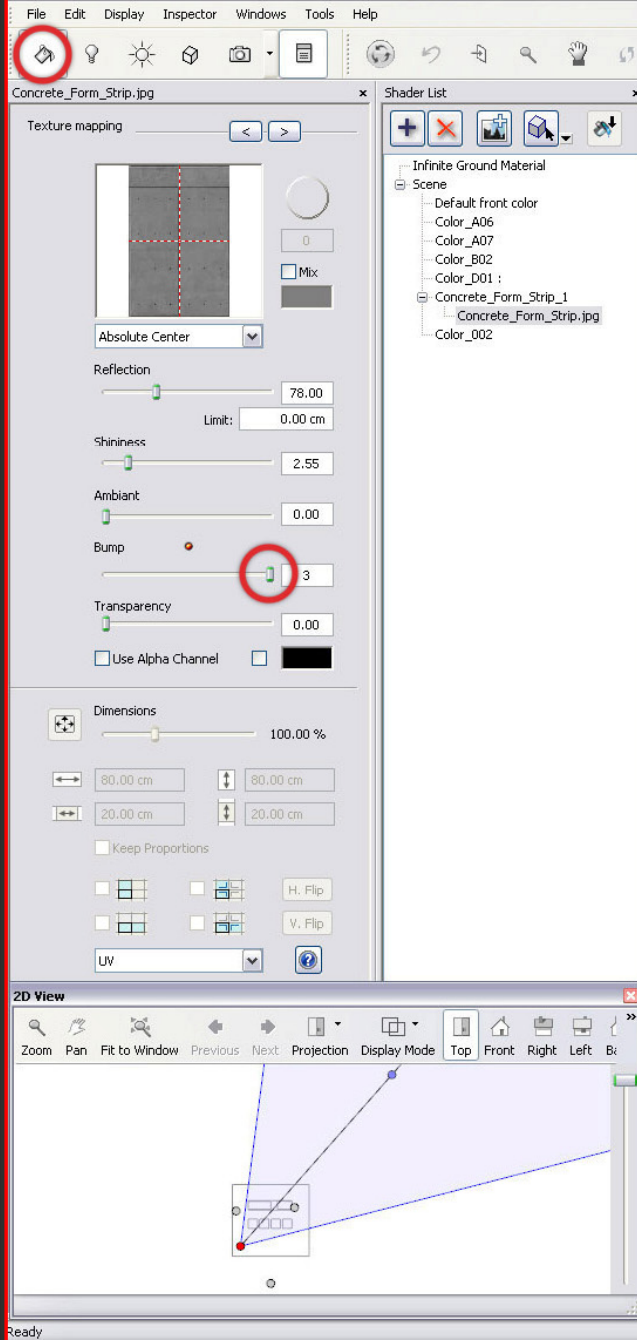
If it contains a texture, it's possible to edit the basics (transparency, reflectivity...) but it's also easy to add an efficient bump effect through a slider (again...).



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# Environment

Because it's all about context...



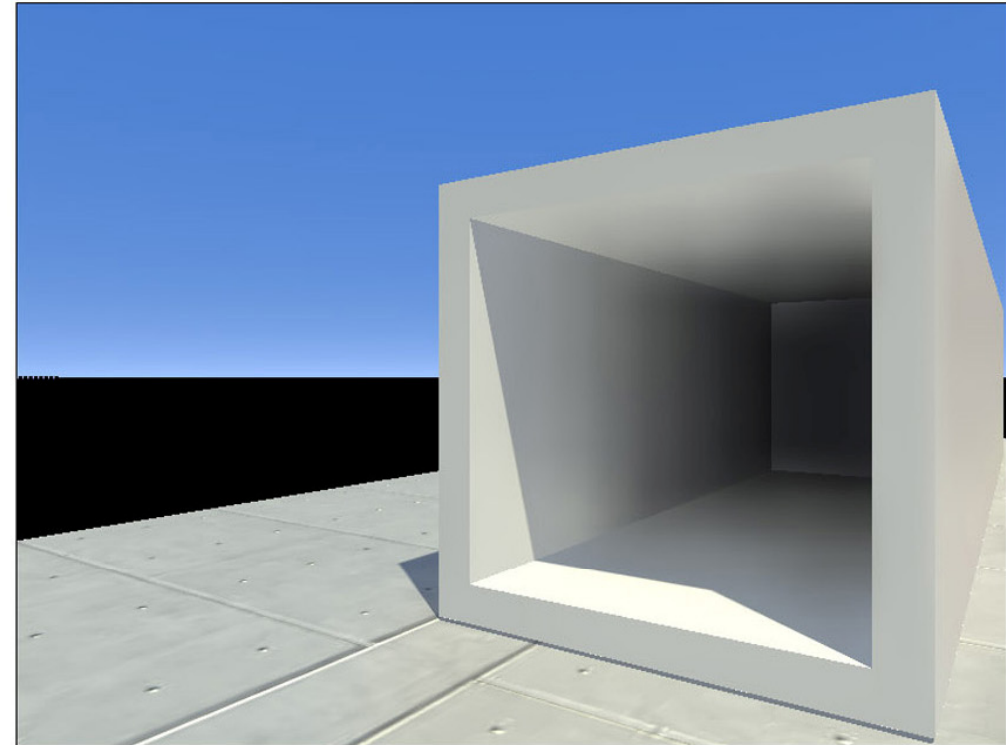
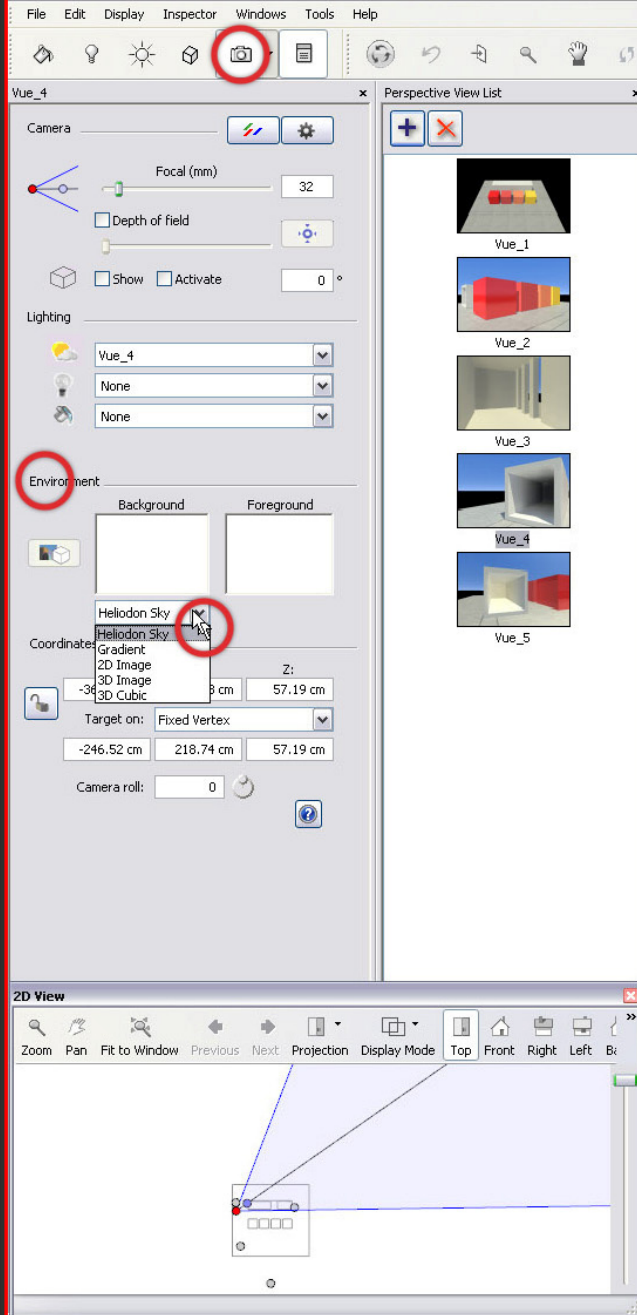
## Environment

When the scene begin to have an interesting look, it's necessary to take a step back and pay attention to the surroundings...

Initially, the background is a 'physical' sky, a colored dome evolving relating to the sun position.

It's possible to add to this realistic sky a wide range of cloud formations, easily adjustable if you had a bit of meteorology knowledge...

If the automatic sky does not suits your needs, you can replace it, through a menu, by more classic elements : solid color, gradient, picture...





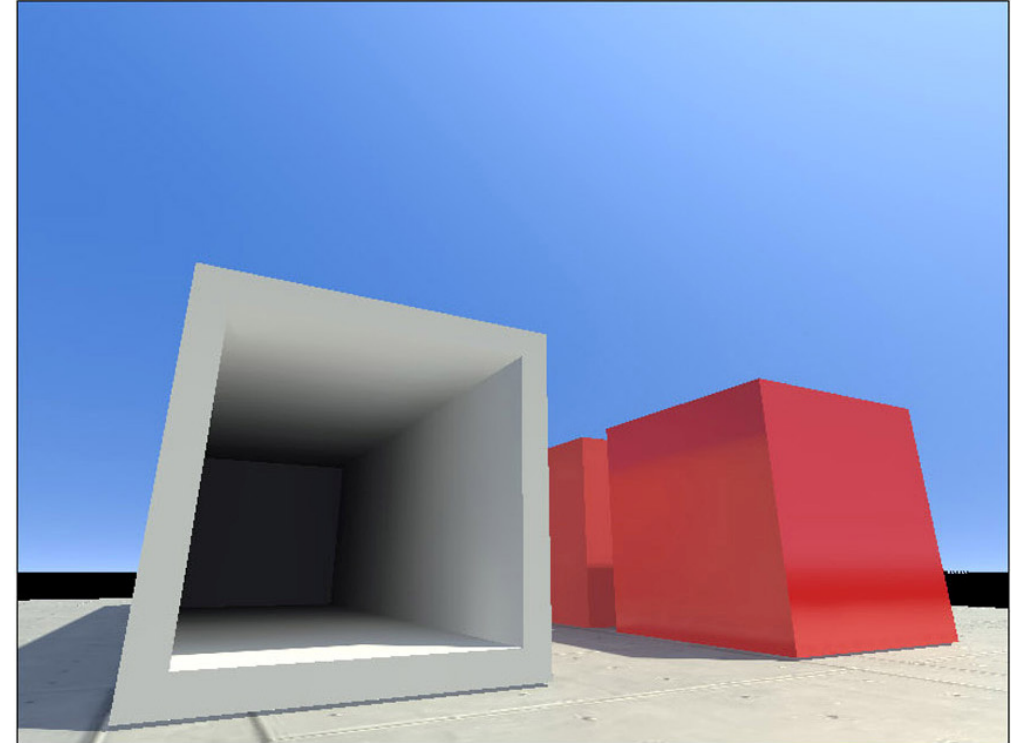
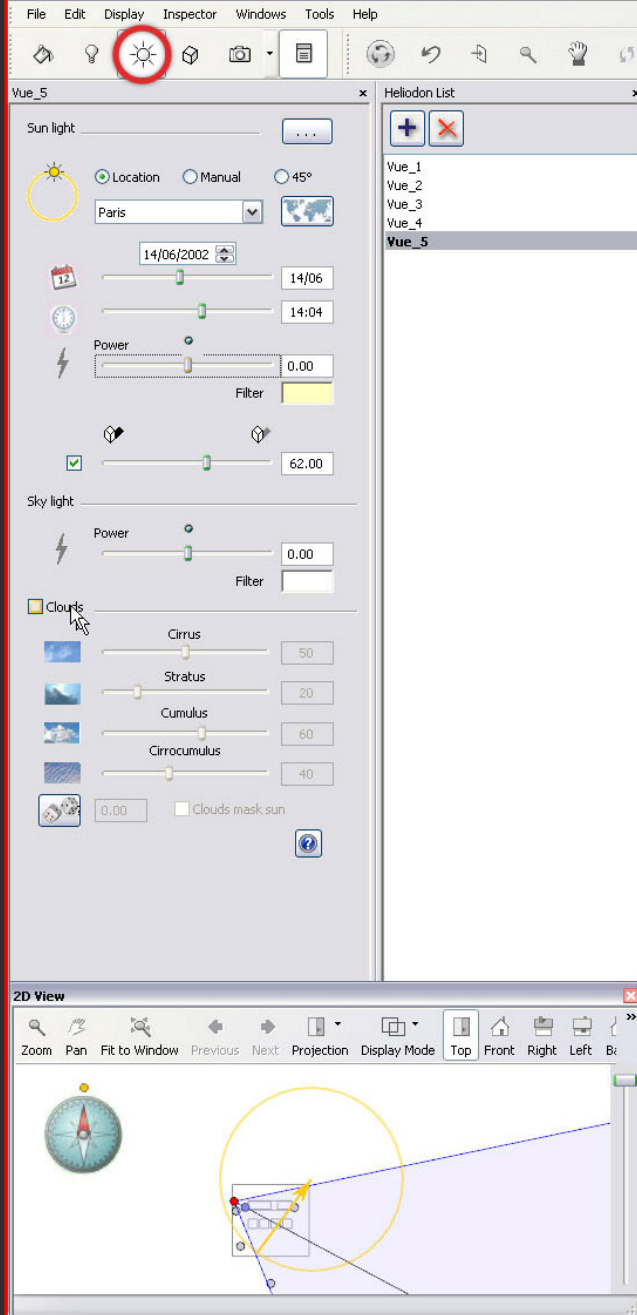
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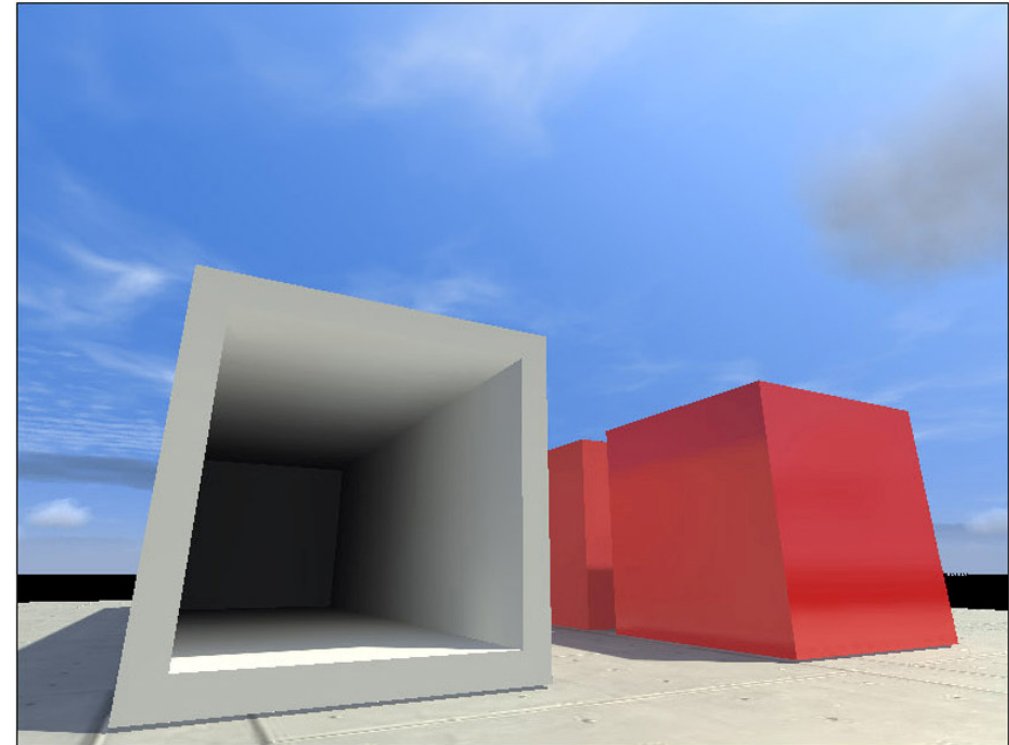
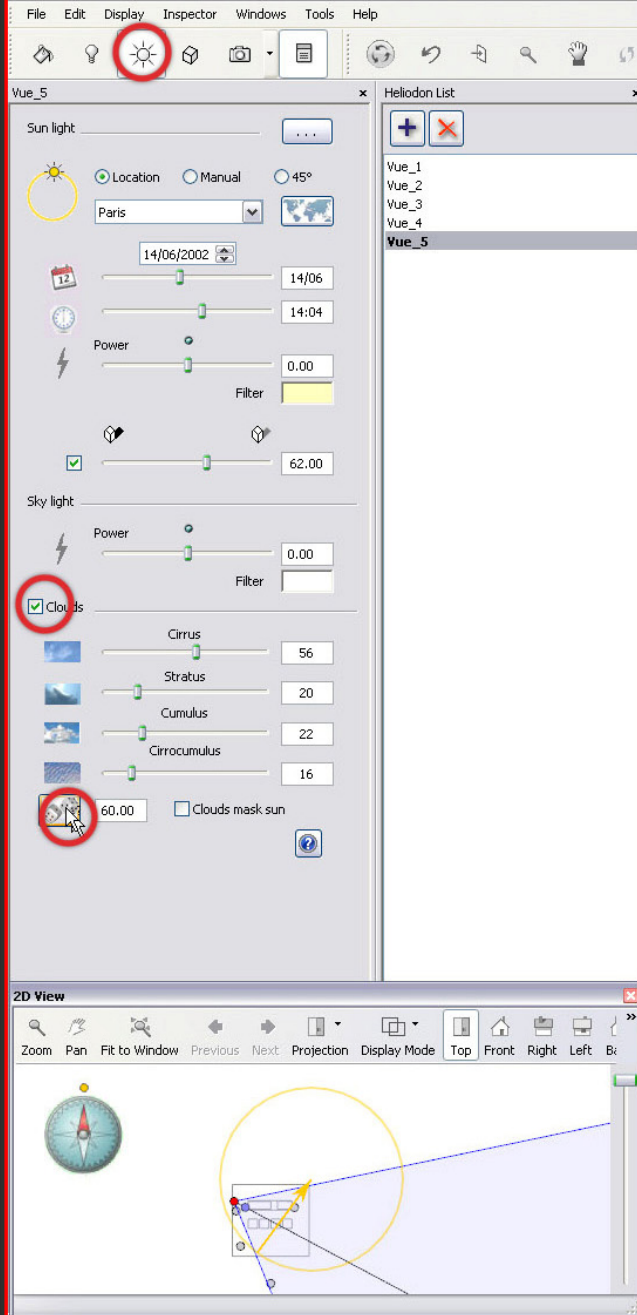
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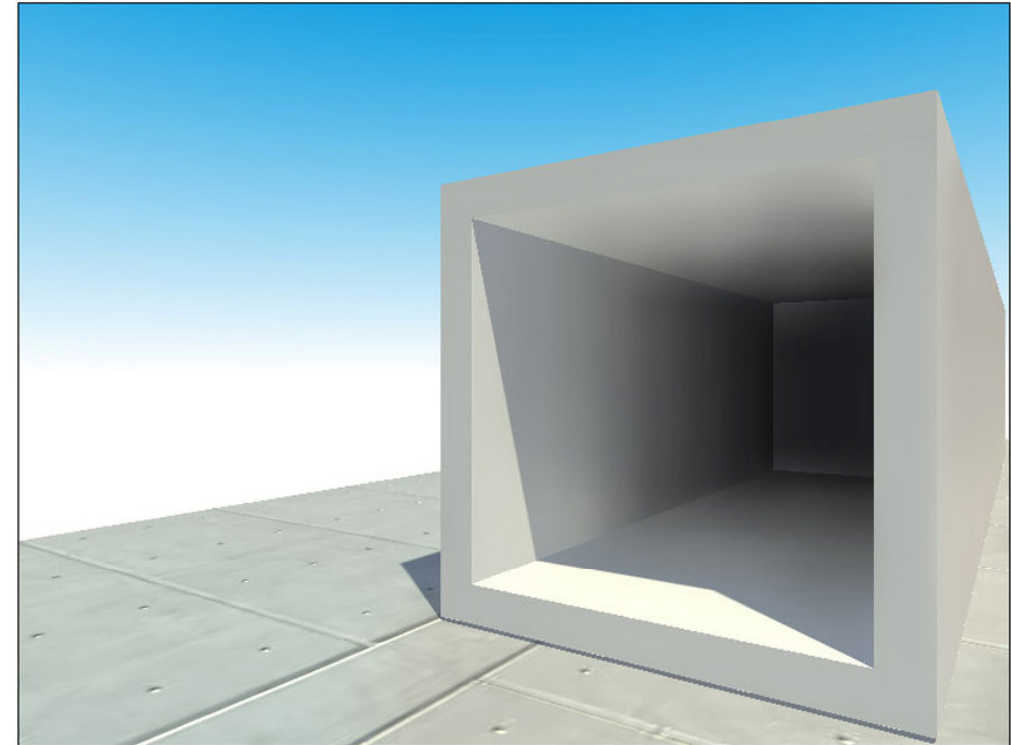
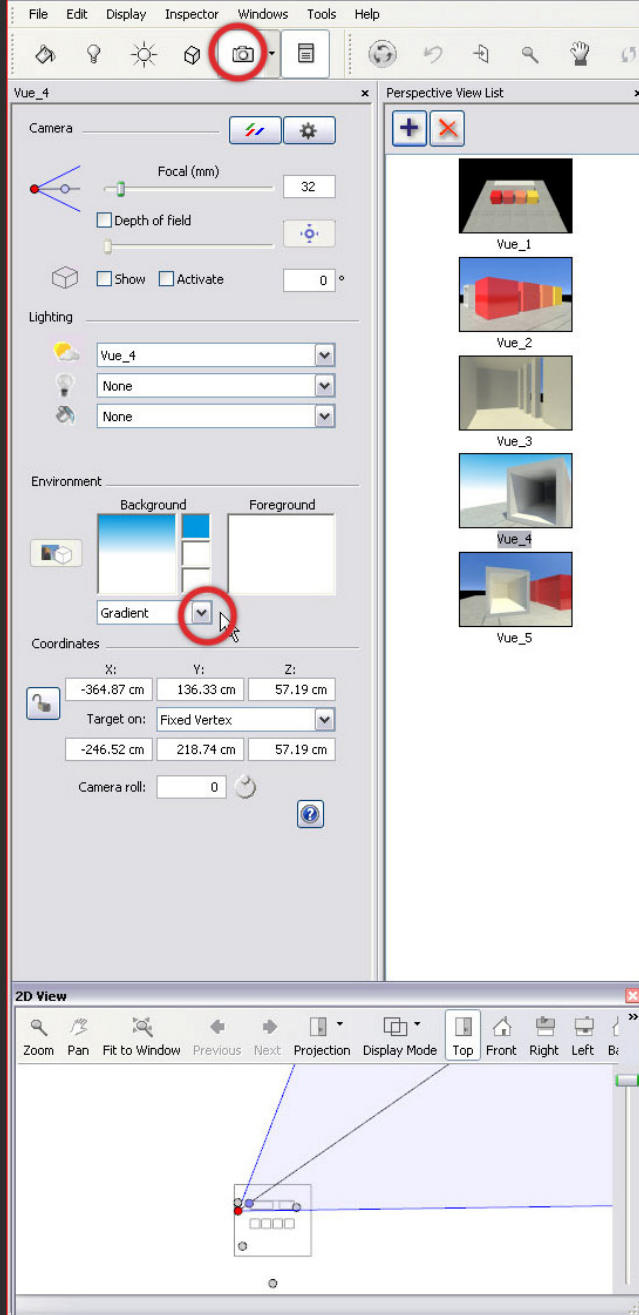
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# Lights

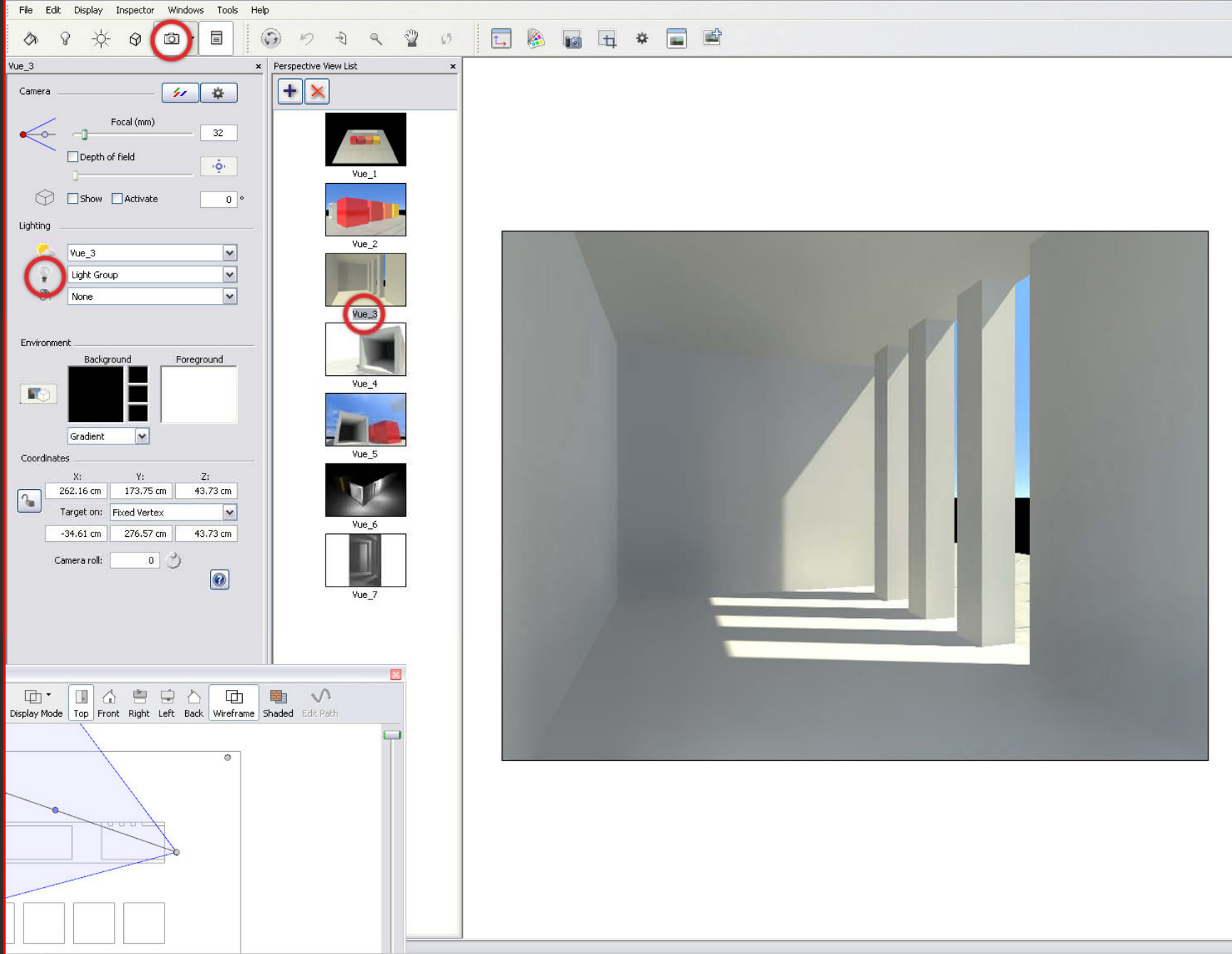
Going further into space illumination...

## Lights

The sun is an efficient light source in many cases, but for indoor rendering, or by night (obviously...) it's quickly limited. It's then necessary to take a look at the artificial light sources (let's consider the virtual sun as a natural one...).

Lamps are arranged into groups, linked to every camera by the lighting panel.

By the way, a night effect is achieved easily by deactivating the sunlight in the same menu.





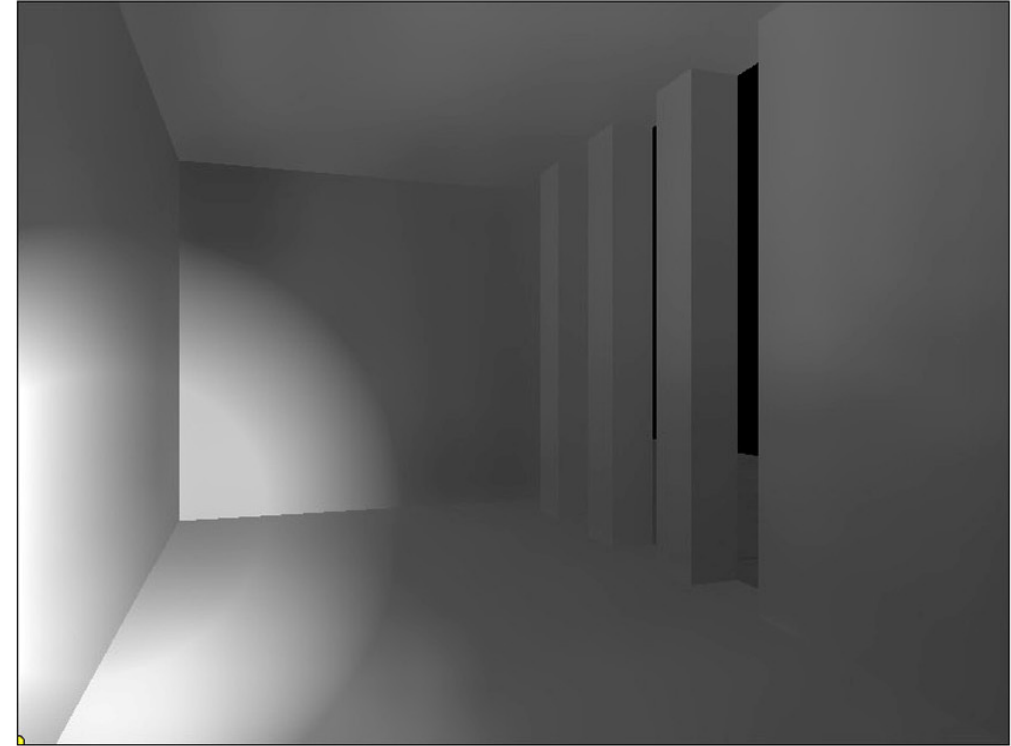
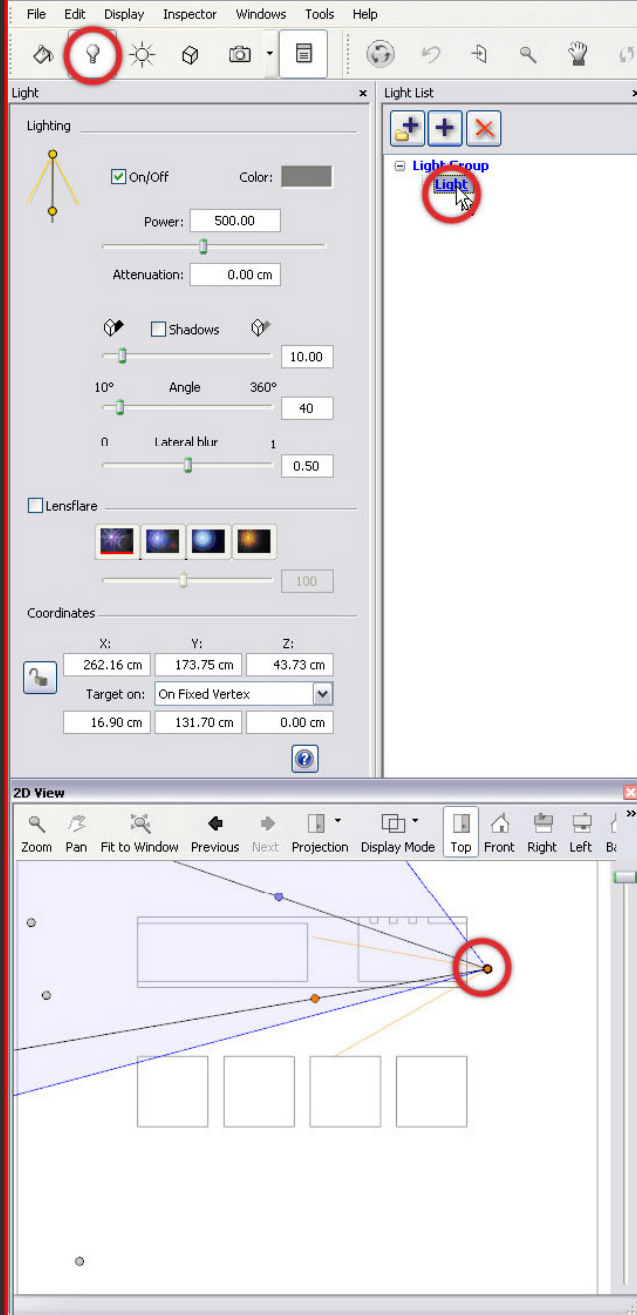
## Lights

To create a lamp, select a light group in the menu and press '+'. The lamp appears at the same place as the camera, and you then have to manipulate it to place it where you want. To do so, use the 2D view, where lamps appear as yellow dots.

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As for the sun, lamp's shadows are not automatically enabled, and the related box has to be ticked to create a more realistic effect.

All lamps are spots, and you can see (and adjust) the three elements that define them (source, target and angle), in the 2D view or by numerical input.

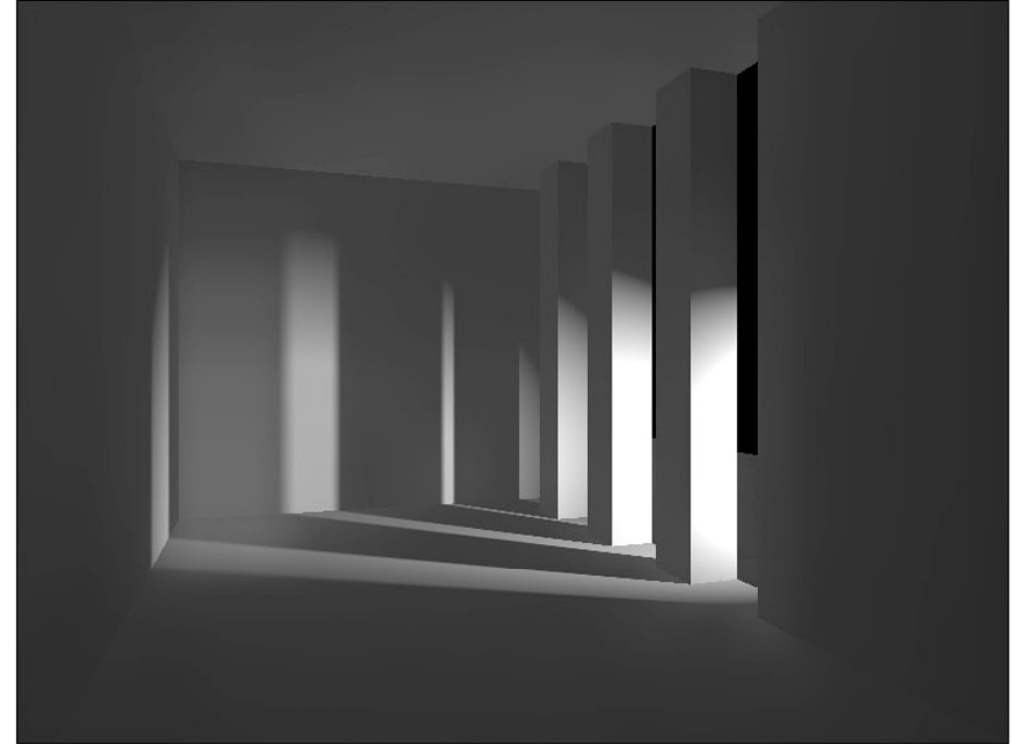
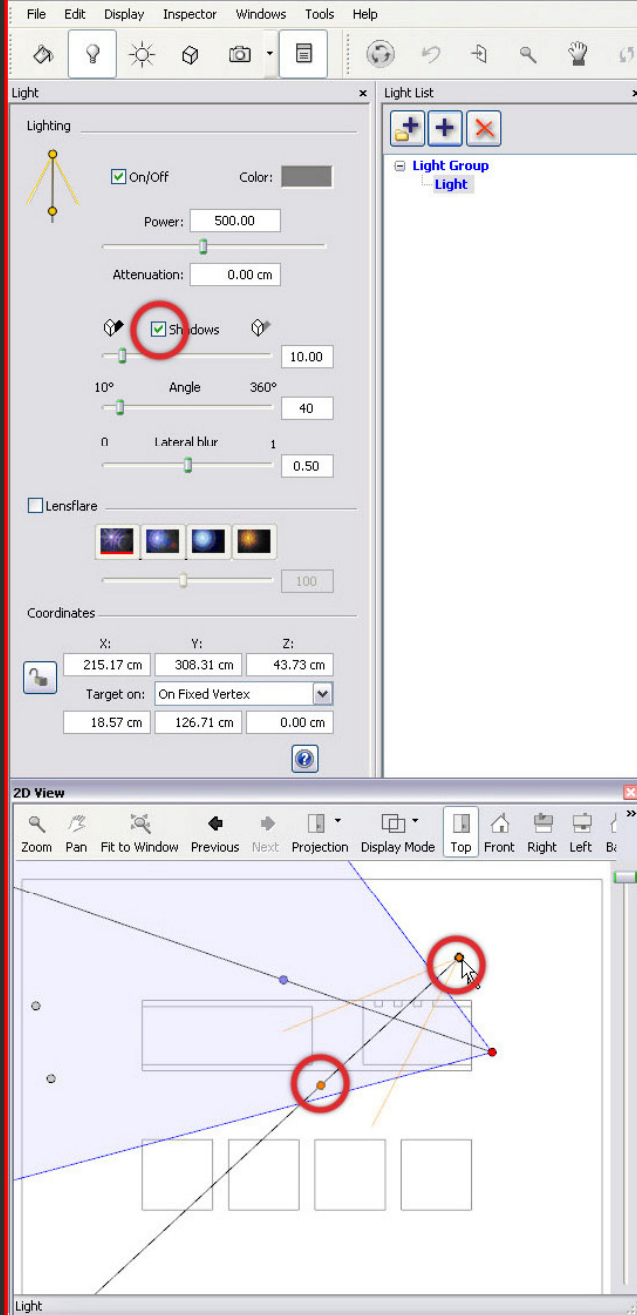


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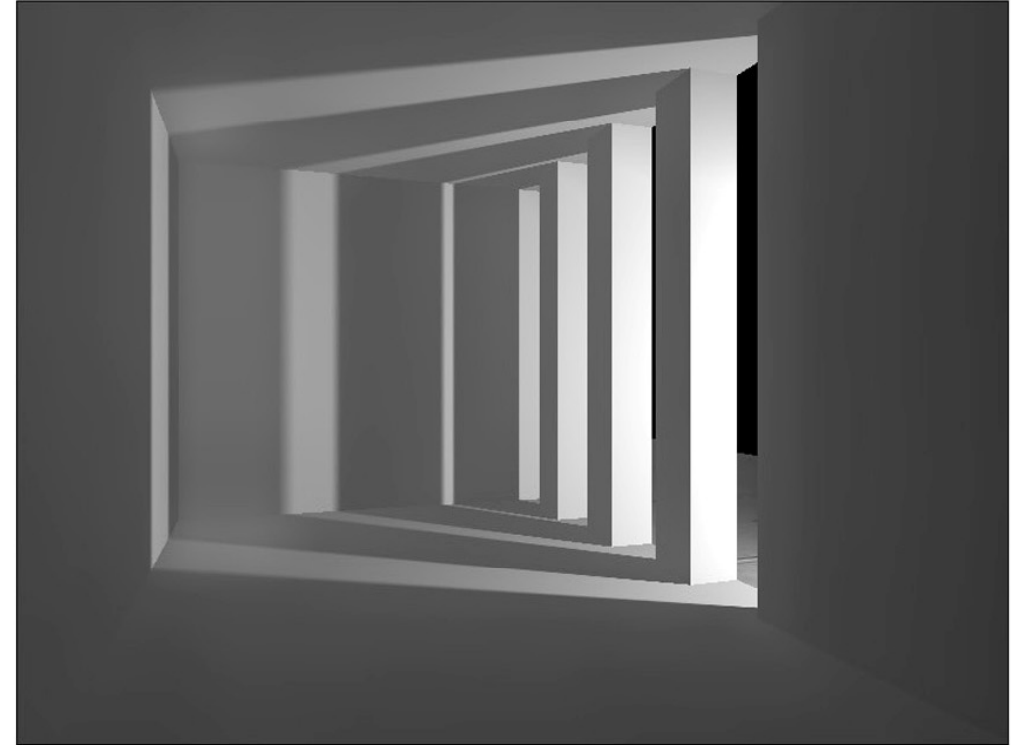
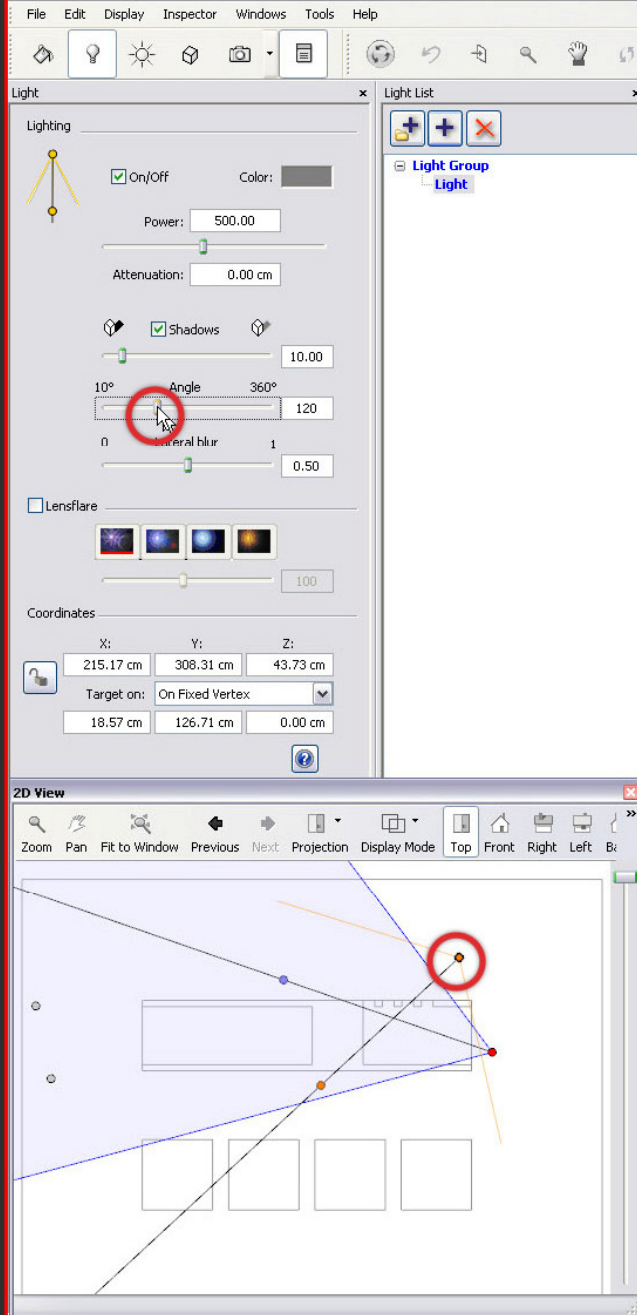
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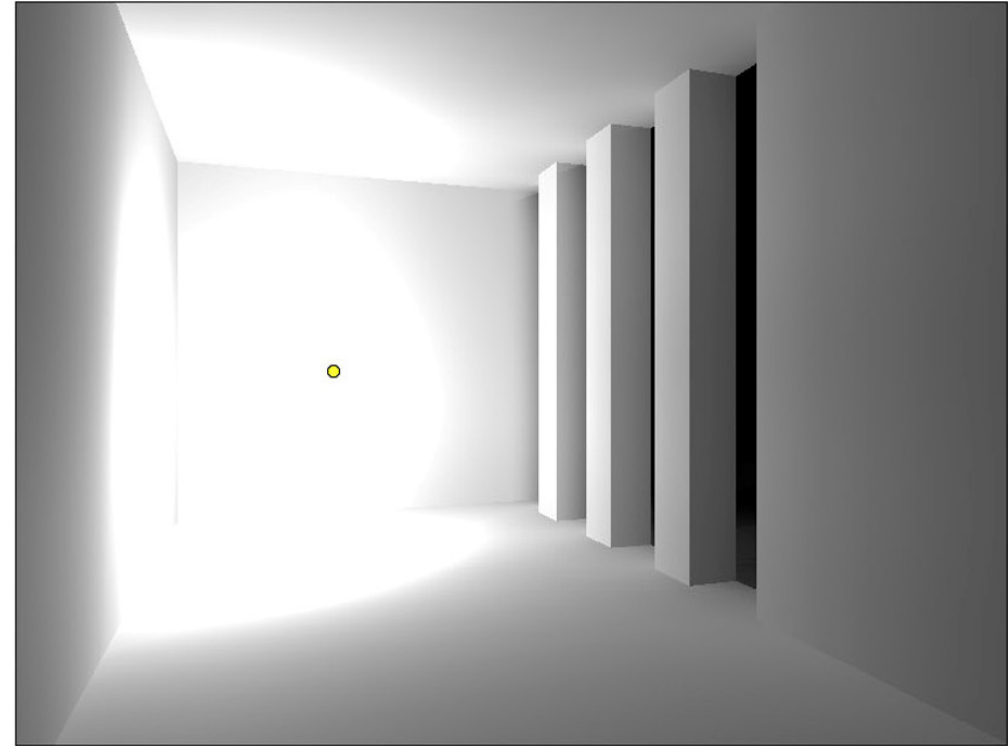
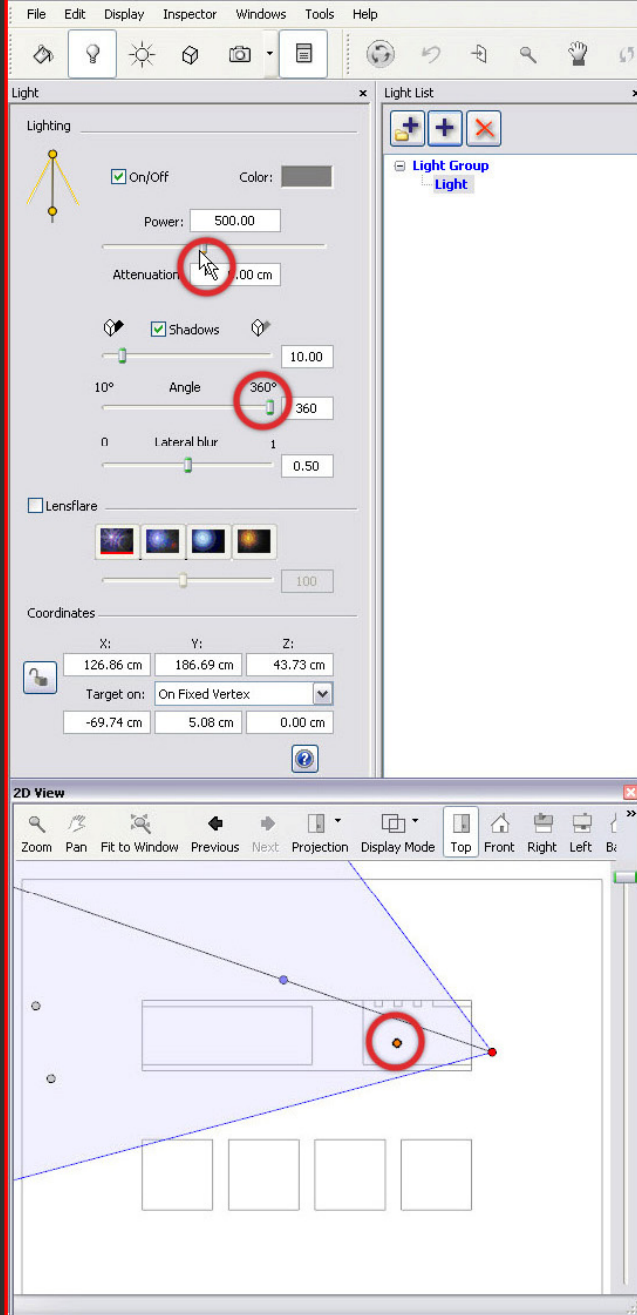
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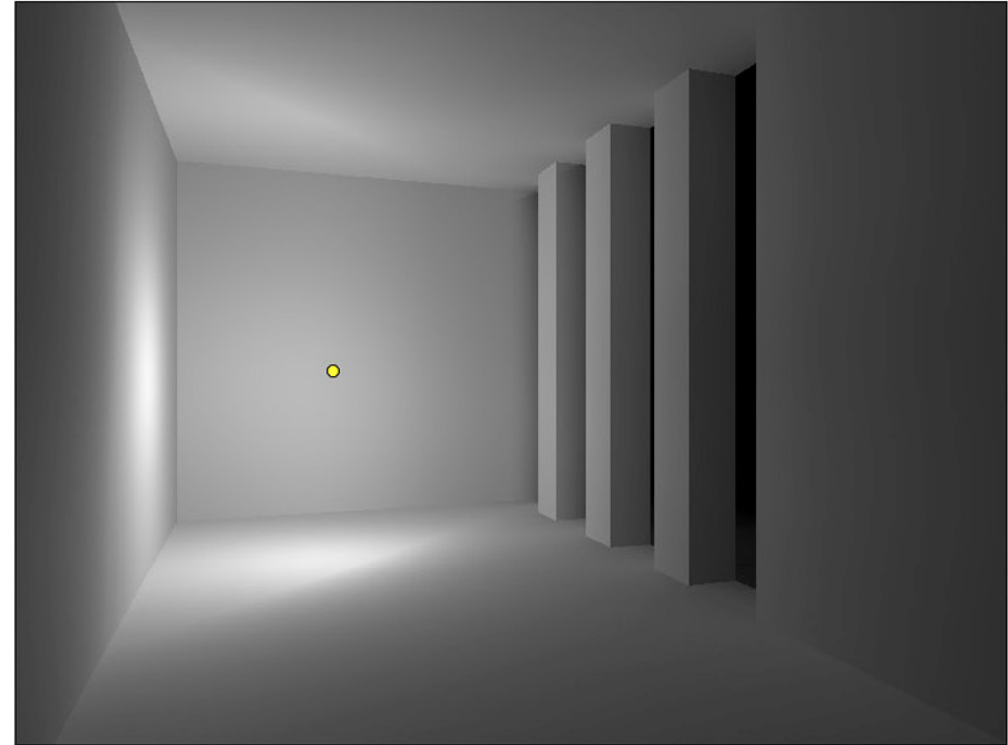
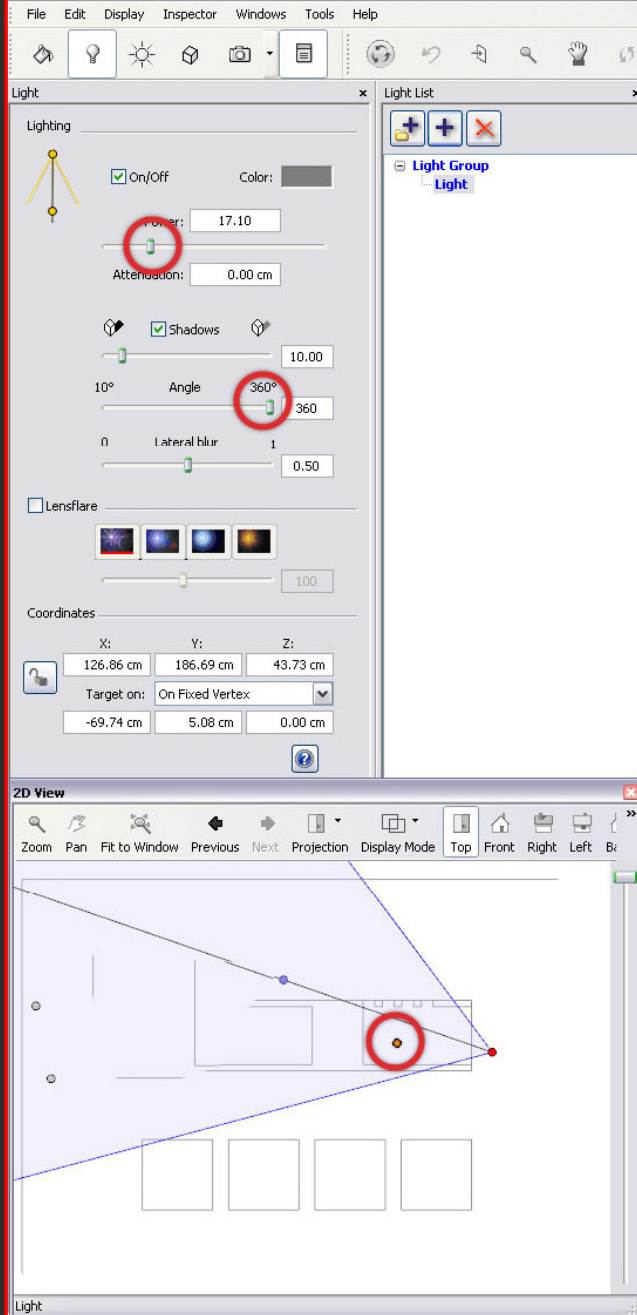
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To get an omnidirectional light source, just set the spot angle to  $360^\circ$ .

Light intensity can be seen directly in the preview window, and, once again, adjusted by a slider (how common...).

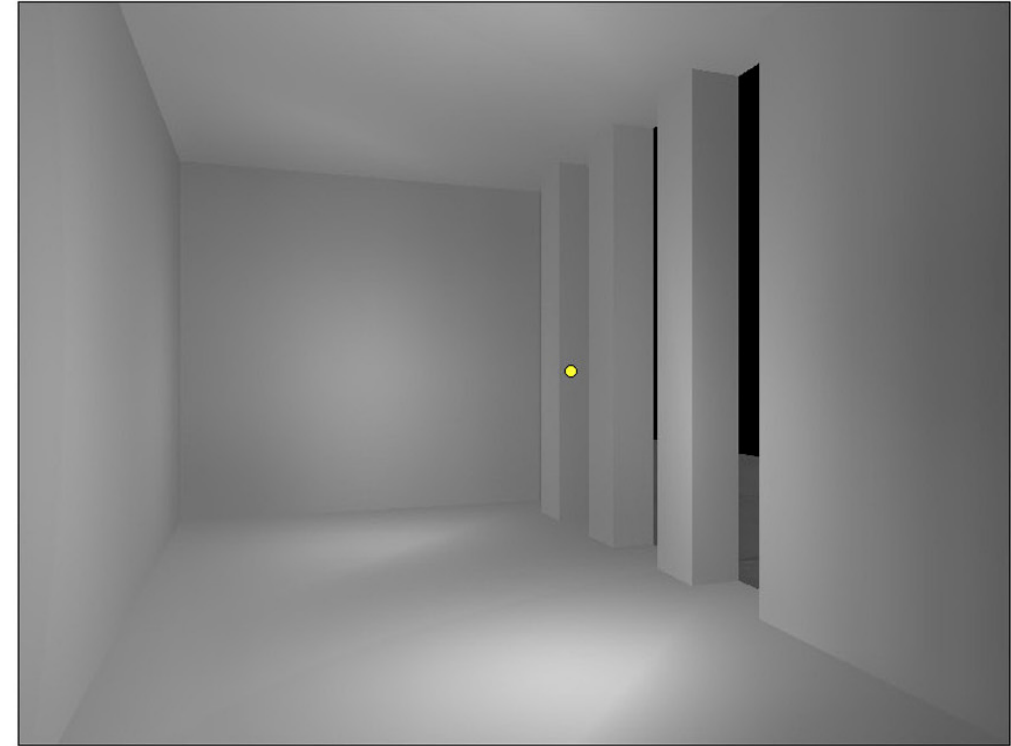
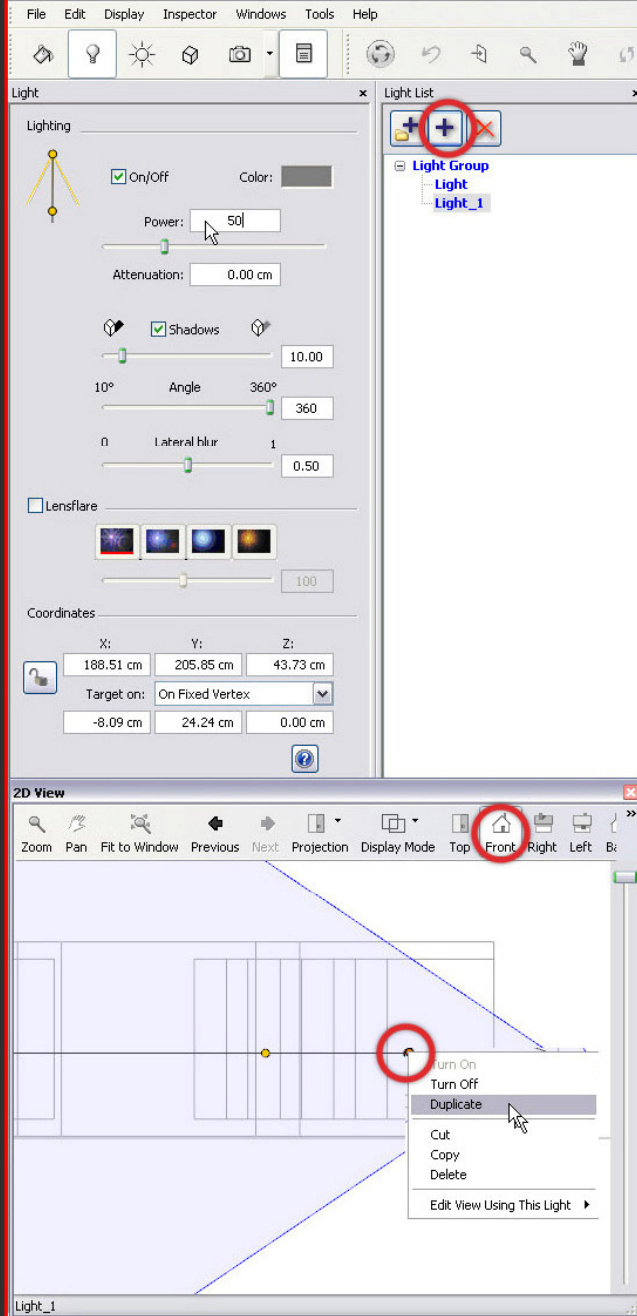




## Lights

To create a new lamp, it's of course possible to press again '+', but it's more interesting to 'right click - duplicate' on an existing light, in order to copy-paste it, in place.

Again, the 2D view is useful to place it well.



# Render

Because that's why you've begin to read this tutorial...



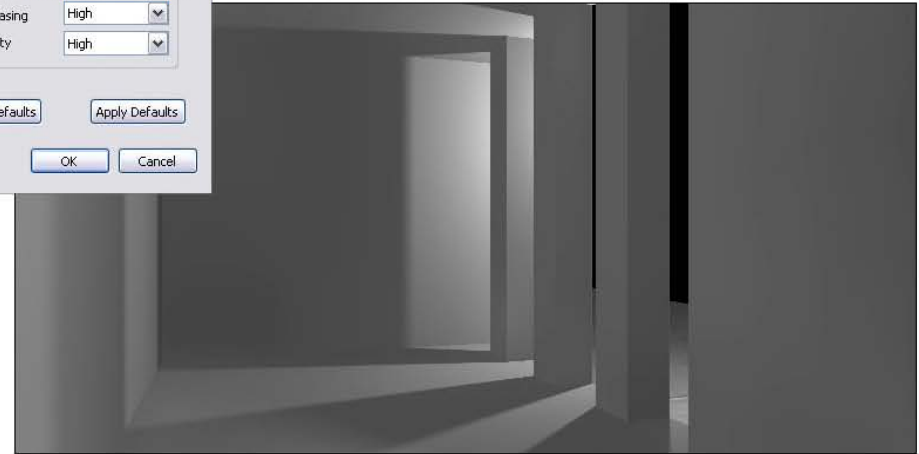
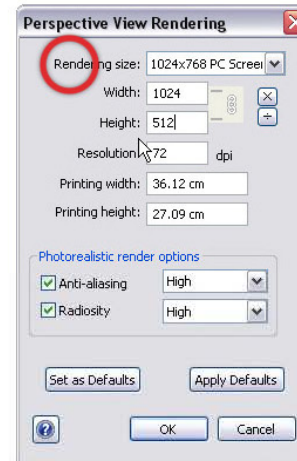
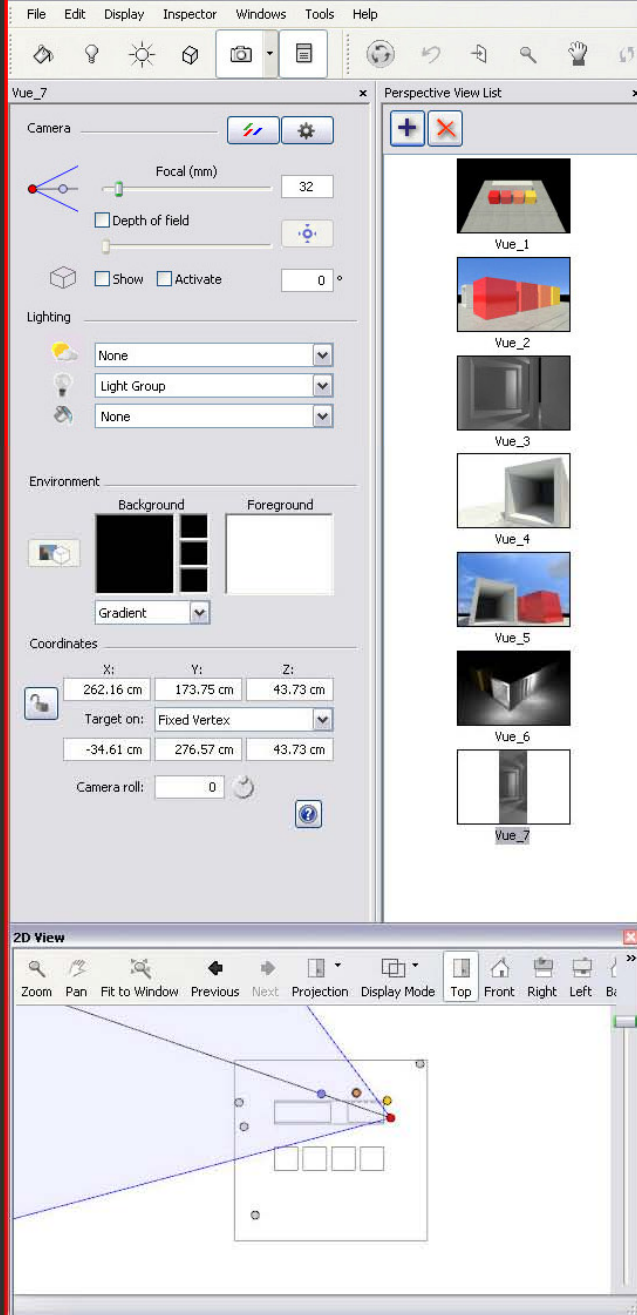
## Render

The model is now ready to be rendered, and there's just some general settings to adjust before it will be done.

Through the settings tab, it's possible to change the rendering size, which will be adopted by the preview window, allowing a better framing of the render.

Picture's quality depends on its size but also on the calculation precision. Main parameters are Antialiasing ('sharpness' of the picture) and Radiosity (light calculation quality).

It's then up to you to choose how to adjust them, regarding to the time left for the rendering process...



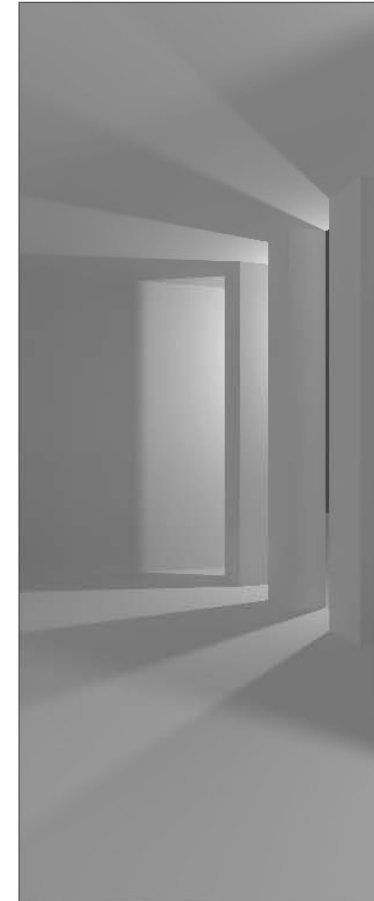
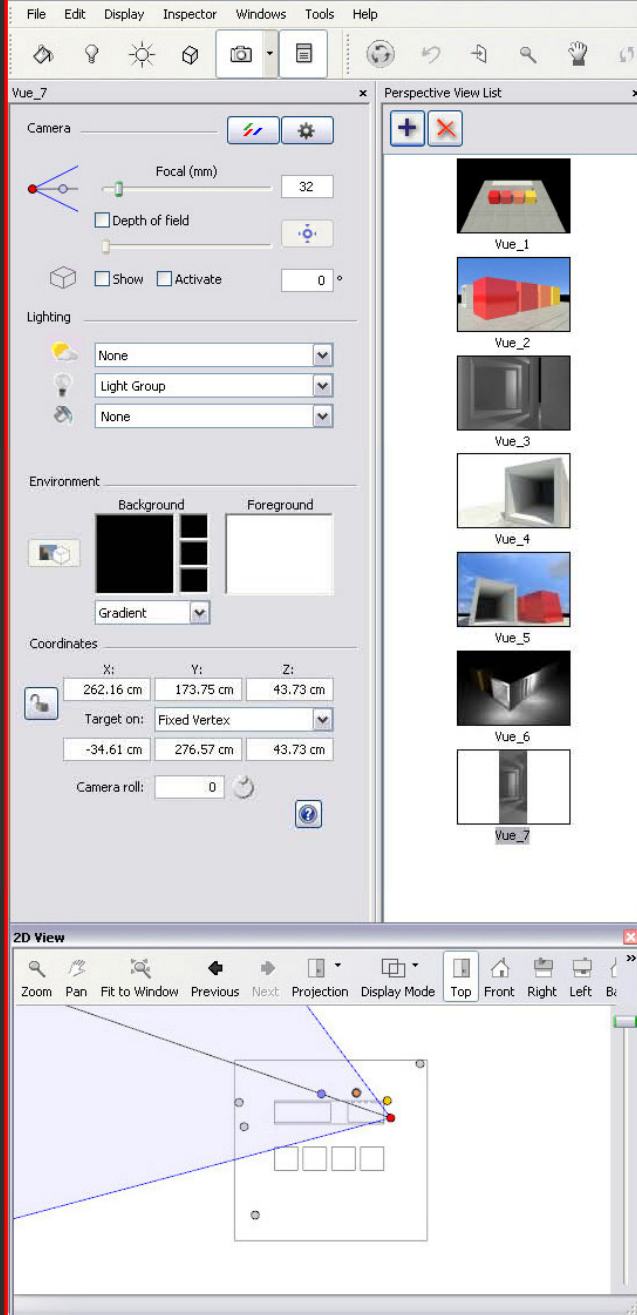
## Render

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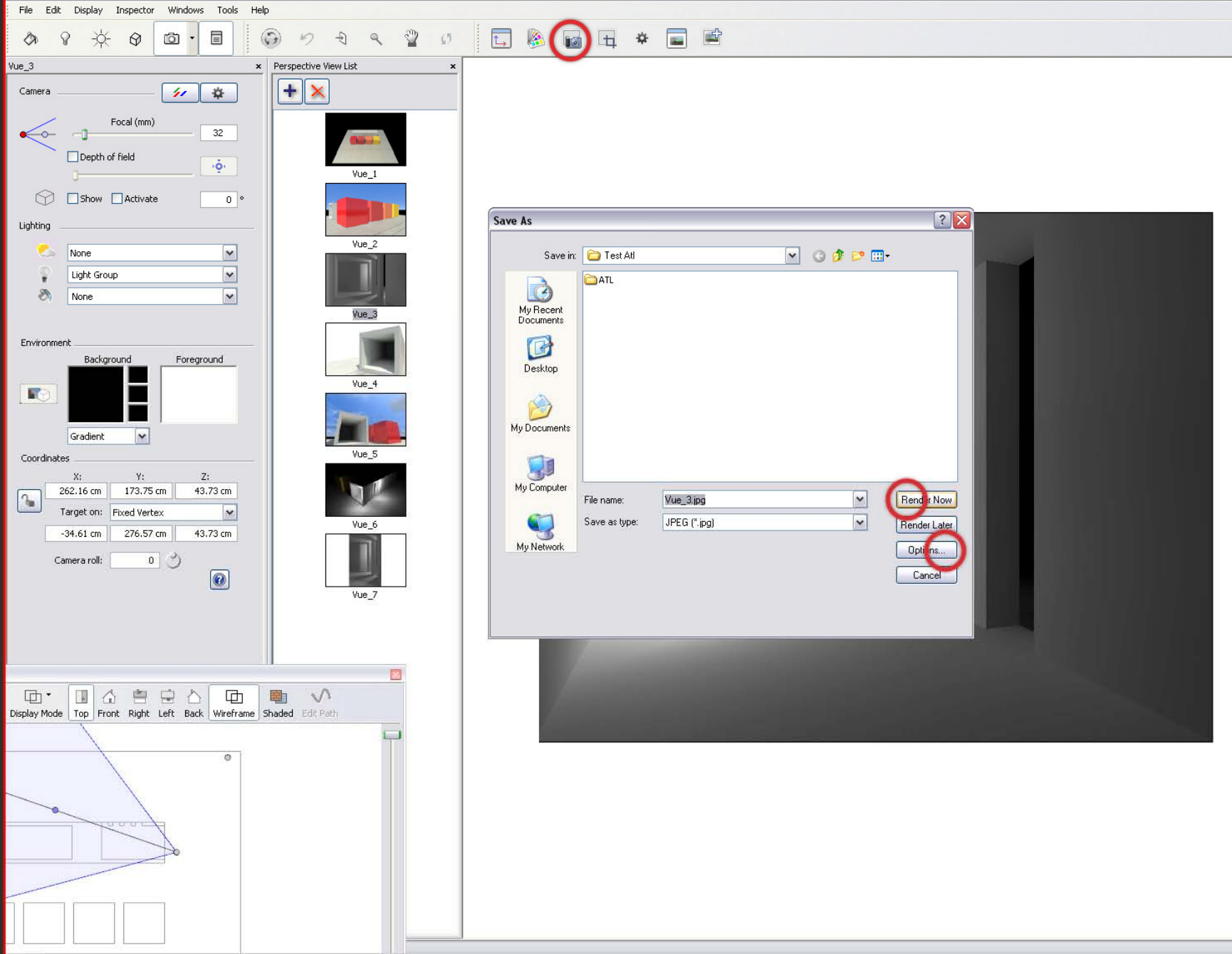
Picture's quality depends on its size but also on the calculation precision. Main parameters are Antialiasing ('sharpness' of the picture) and Radiosity (light calculation quality).

It's then up to you to choose how to adjust them, regarding to the time left for the rendering process...



## Render

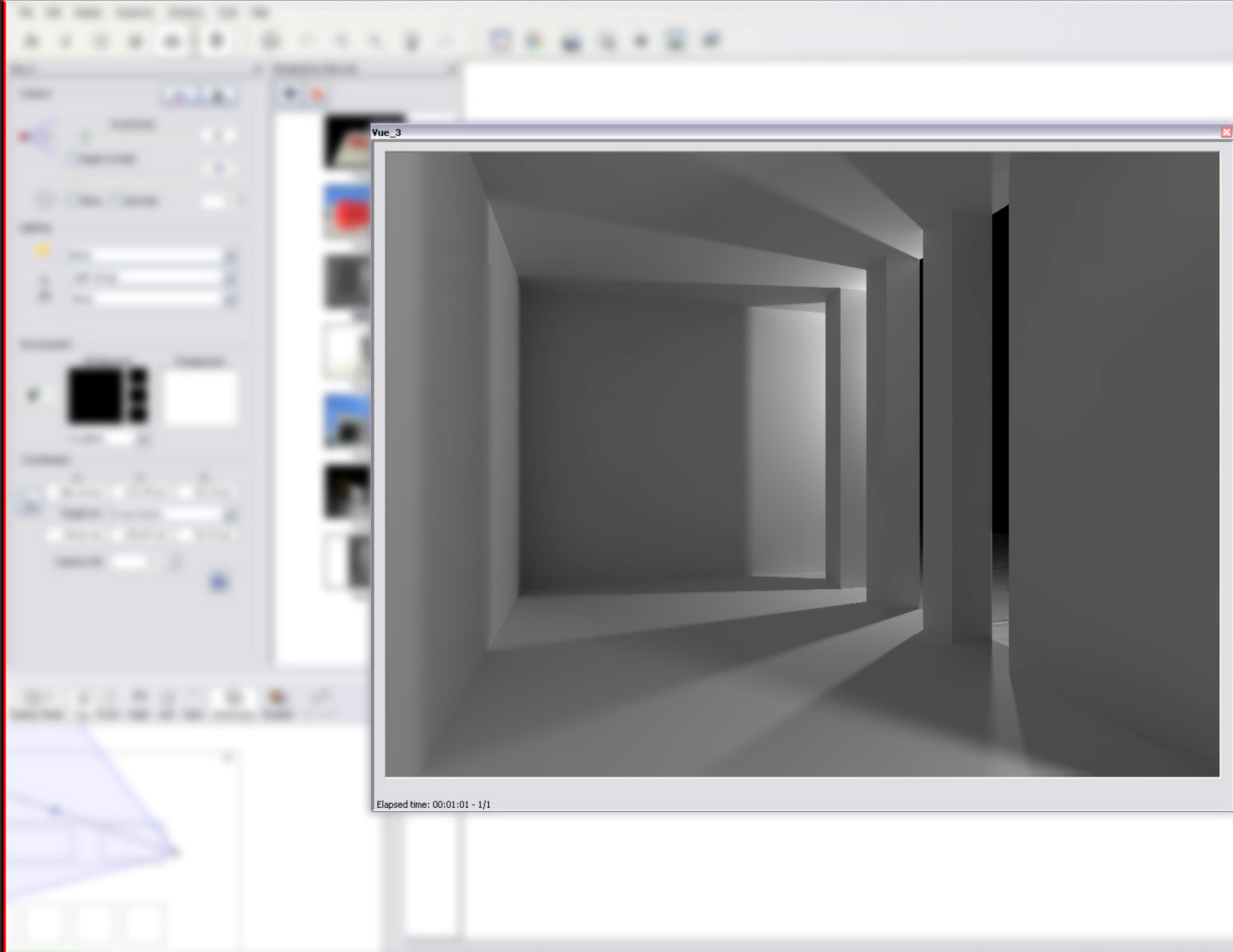
The render window ask you to save the picture, and allows a final settings adjustment before the last big step...





## Render

Well done! Now you just have to wait patiently for the result ...



To be continued...

